GOVERNMENT OF INDIA

PLANNING COMMISSION

THE FIRST FIVE YEAR PLAN

A DRAFT OUTLINE

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A DRAFT OUTLINE

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PLANNING COMMISSION

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INTRODUCTION

The Planning Commission was set up in March, 1950 by a Resolution of the Government of India which defined the scope of its work in the following terms:

> "The Constitution of India has guaranteed certain Fundamental Rights to the citizens of India and enunciated certain Directive Principles of State Policy, in particular, that the State shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life, and shall direct its policy towards securing, among other things,—
>
> (a) that the citizens, men and women equally, have the right to an adequate means of livelihood;
>
> (b) that the ownership and control of the material resources of the community are so distributed as best to subserve the common good; and
>
> (c) that the operation of the economic system does not result in the concentration of wealth and means of production to the common detriment.
>
> Having regard to these rights and in furtherance of these principles as well as of the declared objective of the Government to promote a rapid rise in the standard of living of the people by efficient exploitation of the resources of the country, increasing production, and offering opportunities to all for employment in the service of the community.
>
> The Planning Commission will:—
>
> (1) make an assessment of the material, capital and human resources of the country, including technical personnel, and investigate the possibilities of augmenting such of these resources as are found to be deficient in relation to the nation's requirements;
>
> (2) formulate a Plan for the most effective and balanced utilisation of the country's resources;
>
> (3) on a determination of priorities, define the stages in which the Plan should be carried out and propose the allocation of resources for the due completion of each stage;

(4) indicate the factors which are tending to retard economic development, and determine the conditions which, in view of the current social and political situation, should be established for the successful execution of the Plan:

(5) determine the nature of the machinery which will be necessary for securing the successful implementation of each stage of the Plan in all its aspects;

(6) appraise from time to time the progress achieved in the execution of each stage of the Plan and recommend the adjustments of policy and measures that such appraisal may show to be necessary; and

(7) make such interim or ancillary recommendations as appear to it to be appropriate either for facilitating the discharge of the duties assigned to it; or, on a consideration of the prevailing economic conditions, current policies, measures and development programmes; or on an examination of such specific problems as may be referred to it for advice by Central or State Governments."

2. In the fifteen months which have elapsed, the Commission has been engaged in examining the principal problems affecting the social and economic development of the country. In this task it has drawn much help from the Central Ministries and State Governments. It has also received valuable advice from its Advisory Board and the Panels concerning different subjects.

3. In July, 1950, the Commission was called upon at short notice to prepare a six-year plan of economic development for the country to be placed before the Commonwealth Consultative Committee. With the assistance of the Department of Economic Affairs and the Reserve Bank of India, this task was completed towards the end of August, and the plan was later incorporated into the Colombo Plan for Co-operative Economic Development in South and South-East Asia.

4. Since September, 1950, the Commission has been engaged, in co-operation with the Central Ministries and State Governments, in examining in detail the schemes under execution as well as those proposed to be taken up in the first Five Year Plan. The period of five years was decided upon before the Colombo Plan was drawn up, and as work had been initiated on this basis, it was felt that in this matter of detail no change was necessary. The Commission has also held consultations with representatives of the principal industries for determining the main lines of development to be recommended for industries in the private sector.

5. The Commission has devoted considerable thought to the technique of working out and presenting a plan appropriate to conditions in India. A national plan is, in the last analysis, a programme of action covering every sector of the economy. It is an attempt to pool together the resources available to the community as a whole and to direct them in a manner that will secure the social and economic objectives accepted by it. For this purpose the economy has to be viewed as a unity as well as in its parts, and the plan should reflect not only the links between the various sectors but also their interdependence. Its assessment of financial resources must also be translated into terms of the material resources necessary for achieving the targets proposed. In some countries. considerable advance has been made in collecting and bringing together data which makes possible the forecasting of magnitudes of production, consumption and investment in the community as a whole as well as in particular segments of it. This enables them to examine in detail the different alternatives before them. test the internal consistency of particular economic programmes, and present their plans in a form which shows in considerable detail the way in which they will affect the different sections of the community.

6. The patterns of plans vary, however, with the type of political and economic set-up. In countries where private enterprise plays an important role, only broad estimates regarding development in this sector are attempted. In India, there are special difficulties in the way of presenting a plan along the lines adopted in other countries. Firstly, the economy is itself not fully integrated; there is a large, unorganised sector which responds only slowly to economic stimulii. Secondly, statistical data are not available regarding even some of the basic aspects of the economy. It is, therefore, not possible at present to present a completely integrated view of the economy and the likely effect of planning on the various constituent units or sectors of the economy. The fact that a national plan has to cover the activities of several Governments within a federal structure and of numerous units in the private sector of the economy adds to the complexity of the problem.

7. The scope of our planning is limited, in the first instance, to the public sector and to such developments in the private sector as follow directly from the investments in the public sector, or, on the whole, are more amenable to planning and control. With the data available, we have tried to view as far as possible the repercussions of the plans for these sectors on other sectors of the economy and on the development of the system as a whole, but it must be emphasized that the scope for precision in this respect is. at this stage of our work, strictly limited.

8. The Five Year Plan that has now been worked out for the public sector of the economy involves an outlay of Rs. 1,793 crores over the period 1951-52 to 1955-56. The implementation of the Plan in full would require a considerable measure of foreign assistance, but a part of the Plan, involving an expenditure of Rs. 1,493 crores and consisting largely of projects in execution, has to be implemented in any case. There is no gainsaying that if India is to progress at a rate which will ensure a fair measure of improvement in standards of living to the vast masses of its population, without imposing on them a degree of suffering and regimentation which would endanger the further development of democratic institutions, it will have to receive assistance for some years from countries more advanced than itself. At the same time, it is of the utmost importance that no effort should be spared for making the maximum utilisation of the resources available within the country. In preparing the Five Year Plan in consultation with the Central and State Governments, an attempt has been made to ensure that they will rely as little as possible on assistance from others and that the resources they raise for development will be put to the best use. The Commission has also been engaged in preparing a series of working plans for large-scale industries in the private sector. While steps will be taken to create conditions in which these industries can develop further and contribute to the progress of the community as a whole, the fulfilment of these plans will depend on the effort they themselves make towards this end.

9. Though the Five Year Plan is not all-inclusive in scope, it does attempt to establish control at strategic points in the system which would make it possible to influence a much larger field of activity. In agriculture, cottage industries, and large-scale industries which fall largely within the private sector, the aim of the Plan is to establish during the next few years suitable machinery through which, in increasing measure, the community will be able to exercise a certain measure of control over the rate and pattern of its economic and social development.

10. The techniques of planning will improve as the implementation of the plans proceeds. The full significance of the Plan will emerge as each strand is worked out in detail, appropriate administrative and financial procedures are adopted and the machinery of direction and control is organised. A great deal of statistical and economic analysis will no doubt be necessary before planning in this country assumes the character of a closely-knit and comprehensive system. The deficiencies in existing statistical data are well known, and steps are being taken to improve their coverage and accuracy. The implementation of the Plan will itself provide the stimulus and the opportunity for such studies, and, through them, for progressive improvement in the techniques to be used for planning.

11. Planning in a democratic State is a social process in which, in some part, every citizen should have the opportunity to participate. To set the patterns of future development is a task of such magnitude and significance that it should embody the best thought of the country and reflect as fully as possible the impact of public opinion and the needs of the community. We have, therefore, felt it necessary, before presenting our proposals in complete detail, to offer a Draft Outline of the Plan. The Draft is intended to be a document for the widest possible public discussion. We hope to have further consultations with the Central Ministries, State Governments and our own Advisory Board and Panels, and also to obtain the views of Members of Parliament before we finalise the Plan.

12. This Draft Outline is divided into three parts. In the first part, we explain our approach to planning; in the second, we present the salient features of the Five Year Plan; the third part deals with problems of policy and administration. It has not been possible in the brief compass of this outline to do more than sketch our approach to certain leading problems of national reorganisation and development. There are a number of questions still under study on which we have, therefore, deferred our views.

13. The ideas of social and economic change on which a National Plan is sustained will continue to grow as experience is gained and the impact of new forces felt. The success of the Plan will depend on the extent to which it enlists the association and co-operation of the people. It is our hope that the Five Year Plan, in its final form, will come to be regarded as the field of endeavour within which every citizen can co-operate and offer his best for the common good.

PART I

THE APPROACH TO PLANNING

CONCEPT OF PLANNING

PLANNING is essentially a way of organizing and utilizing resources to maximum advantage in terms of defined social ends. The two main constituents of the concept of planning are: (a) a system of ends to be pursued, and (b) knowledge as to available resources and their optimum allocation. The ends derive ultimately from the basic values of life a community accepts. At any given time, the availability of resources conditions the ends that can be pursued effectively, and ends, together with the technical possibilities of available resources, determine the application of these resources in terms of concrete programmes of action in various fields. Over a period of time, the systematic pursuit of defined ends creates conditions for an addition to, and adaptation of, the resources available.

2. The impulse to planning derives, under present-day conditions, from the widely-felt need over large parts of the world to secure the fulfilment of certain ends which, it is coming to be recognised more and more, the unregulated or uncoordinated operation of economic and social forces cannot secure. In the industrially advanced countries, broadly speaking, the emphasis of planning is on a correction of the shortcomings of the system of private enterprise through changes which would secure a more equal distribution of the benefits of economic development. For countries relatively underdeveloped, the problem is to promote rapid development and, at the same time, to see that the benefits of this development accrue to all classes of the community. The last half-century has witnessed a widening of social ideals. The economic system is now expected to provide, in increasing measure, freedom from want and from insecurity, not to a few but to all. The problem of economic development under modern conditions has, therefore, a social complexion quite different from the one that countries, say, in the nineteenth century had to face. Firstly, there is now a greater sense of urgency; secondly, there is a greater awareness of and insistence on certain basic values. Economic progress is, therefore, interpreted to mean much more than the building up of an efficient apparatus for production of material goods; it means also the provision of social services, the widening of opportunities for the common man and social equality and justice. Such all-round progress cannot be attained without planning.

3. The objective of economic and social planning, then, is to canalise the idealism and the constructive urges of the community into new lines of activity. In the field of physical sciences, man has been able to record great achievements. The question has naturally been raised why, given similar endeavour and persistence, it should not be possible to secure comparable advances in the sphere of economic, political and social affairs. Between the phenomena which physical sciences study and those which fall within the scope of social science and philosophy, there are significant differences. But, there is no doubt that if economic and social problems are analysed objectively and assessed in terms of certain well-defined criteria, a course of action best calculated to produce the desired results could be mapped out. Society is no longer content passively to evolve; it wants to develop. Planning is thus purposive adaptation of resources to social ends.

4. This adaptation requires that we take into account the economic and social structure inherited from the past. Social processes are complex, and a correction of some of the long-term trends which have been operative in the economy calls for time and steady effort. In order to secure ordered all-round progress, planning has to be envisaged as a continuing process, a process which reaches full fruition over a period of time. A Plan may relate to a particular period, but not all its effects can be realised within the period. Its significance, therefore, is to be judged not merely by the results that are expected to materialise by the end of the period, but by the new trends it sets up in the direction of ordered growth.

Political and Administrative Conditions

5. The essential conditions for successful Planning are:
   (a) a large measure of agreement in the community as to the ends of policy;
   (b) effective power, based on the active co-operation of citizens, in the hands of the State; and, earnest and determined exercise of that power in furtherance of these ends; and
   (c) an efficient administrative set-up, with personnel of requisite capacity and quality.

6. These psychological, political and administrative factors form the very base on which the edifice of planning has to be built. The importance of unity of purpose is illustrated by the records of achievement a country sets up under the stress of emergency, such as war. The pressure of circumstances creates a unanimity as to the ends of

policy which permits of no deviation from the pursuit of the objective in view. This unanimity produces a coherence of policies and of practical measures so essential to planning. It follows that a major task for a Government which embarks upon planning in peace-time and for a constructive end is to create in the community similar earnestness of purpose on the basis of which resources can be mobilised to the full extent. It is this earnestness of purpose which enables a community to make whatever sacrifices are necessary for the attainment of defined goals.

7. The ability of Government to plan, to work out consistent policies and to implement them effectively is, in a democratic country, a direct function of the measure of support and co-operation it receives from the public. Such support and co-operation are the real sanctions behind the Plan. In a totalitarian country, planning is in the hands of an all-powerful central authority. This makes the implementation of plans easier and facilitates the achievement of results relatively quickly. But, the acceptance of a totalitarian system involves a sacrifice of certain basic values and, while some of its immediate results may appear promising, they are attained under conditions of hardship and suffering the incidence of which is by no means light or equally distributed. Economic development necessitates sacrifices in the immediate present; these have to be made under a totalitarian system as much as under a democratic system. The difference only is that under the latter, these sacrifices are made voluntarily on a rational acceptance of the ideals of planning. Democratic processes are more complicated, they make larger demands on the State as well as on the people, but they are an essential condition of growth from within, and, therefore, of sound and enduring progress. Democratic planning means choosing the hard way; but, what may seem to be the easy way or a short cut is, perhaps, nowhere more dangerous than in this sphere.

8. Planning in India has to be conceived within the framework of the political structure set up by the Constitution. This is a federal structure, in which the Central Government and the Governments of States have their assigned spheres of action, and, there is, in addition, a list of concurrent subjects in regard to which the Centre as well as the States can undertake legislation. Residuary powers rest with the Centre, which also has certain emergency powers. 'Economic and Social Planning' is in the Concurrent List, as this is a field in which the Centre and the States are both interested and have to work in unison. Close co-operation between the Centre and the States is thus essential for formulating as well as implementing plans. The tradition of mutual consultation and of adjustment of policies as between the Centre and the States will be strengthened as planning proceeds,

and the increasing measure of coherence in policies and measures thus brought about will, no doubt, accelerate the pace at which progress can be achieved along the lines indicated in the Plan.

9. Democratic planning presupposes an overall unity of policy, combined with proper diffusion of power and responsibility. In such planning, not only the Governments of States but also local self-governing bodies, such as municipalities, district and *taluka* boards and *panchayats* and various functional organisations have to play a vital part. Measures to promote a healthy growth of such institutions are, therefore, an integral part of democratic planning. We visualise that in due course it will be possible for the *panchayats* and other local, regional and functional bodies to participate actively in the preparation of plans. The role of the central planning authority will be to prepare a general framework for the Plan, to invite the appropriate local and functional bodies to send in the plans affecting their respective fields, and, when these are received, to assess them in terms of overall priorities, to amend and adapt them, in the light of overall needs and resources, and, finally to work out, in consultation with the bodies concerned, a comprehensive National Plan. In the implementation of the Plan, again, the principle of diffusion of power and responsibility must be followed. The function of the Central Government is thus to evolve a co-ordinated policy and to act as an ultimate source of reference in case of conflict between local or sectional interests. The purposive direction which planning involves has to be secured in this manner by the Central Government. Without such direction, concerted action is not possible.

10. Given a State thus organised, it is of the utmost importance that it has at its command an administrative system, whose personnel is capable of discharging the varied responsibilities that devolve on it in connection with the execution of the Plan. This is a subject to which the Planning Commission has given careful consideration. The administrative machinery in the country has been greatly strained as a result of the rapid extension of the activities of the State in recent years. There has been some deterioration in standards of efficiency and, in some cases, of integrity. In some parts of the country, which have recently been integrated into the all-India structure, there is dearth of personnel of the right quality and experience. Modern administration is a complex art which requires specialised talent and experience. Arrangements have to be made to build up the strength of such personnel to the required extent. At the highest level, the enunciation of policies and their execution shade into one another. At this level, the best talent in the country has to be harnessed. But, at all levels, the Government is known to the citizen mainly through

the officials he comes into contact with. The capacity of the administrative system to be able to cope with its functions at all points is, therefore, vital to the success of planning.

THE ECONOMIC AND SOCIAL PATTERN

11. The economic and social pattern to be attained through planning is indicated in the Directive Principles of State Policy enunciated in Articles 36 to 51 of the Constitution. In terms of these Directive Principles, the State is to regard the raising of the level of nutrition and the standard of living of the people as among its primary duties. The economic policy of the State must be governed by the obligation placed upon it to secure that the citizens, men and women equally, have the right to adequate means of livelihood. The State has to endeavour, within the limits of its economic capacity and the stage of development reached, to make effective provision for securing the right to work, the right to education and the right to public assistance in cases of unemployment, old age, sickness, disablement, and in other cases of undeserved want. For attaining these ends, the Directive Principles enjoin that the ownership and control of the material resources of the country should be so distributed as best to subserve the common good, and that the operation of the economic system should not result in the concentration of wealth and of the means of production in a manner detrimental to the common good. Special stress is laid on the need to secure to all workers, agricultural, industrial and others, work, a living wage, conditions of work ensuring a decent standard of life and full enjoyment of leisure and social and cultural opportunities. In furtherance of these aims, the State is to endeavour to organise agriculture and animal husbandry on modern and scientific lines and to promote cottage industries on individual or co-operative lines.

12. Briefly, the Directive Principles visualise an economic and social order based on equality of opportunity, social justice, the right to work. the right to an adequate wage and a measure of social security for all citizens. They do not prescribe any rigid economic or social frame-work, but provide the guiding lines of State Policy. Planning in India has to follow these guiding lines and to initiate action which will, in due course, produce the desired economic and social pattern.

THE ECONOMIC SITUATION

13. For over a decade, the Indian economy has been subjected to exceptional stresses and strains. The War meant a large draught on civilian resources, the inflationary consequence of which could be

mitigated only to a limited extent through controls. The abnormal political conditions in the two years between the cessation of the war and the attainment of Independence, and the dislocation of the economy consequent on Partition added to the imbalance in the economy and led to a further deterioration in the economic situation. The suspension of controls towards the end of 1947 led to an activation of latent inflationary pressures and resulted in a rise in prices to the extent of about 30 per cent. in the course of six or seven months. In spite of this unfavourable background, a reduction in development expenditure was not immediately practicable, and the Government of India as well as the Governments of States tried to put through schemes of economic development and social amelioration. These schemes were not undertaken on a planned basis. The anticipations regarding available financial resources did not also come true. The benefits of some of these schemes could, in the nature of things materialise only after a period of time. Meanwhile, the pressure on limited resources created new problems.

14. The main facts of the wartime and post-war developments may briefly be stated as follows:—

(i) The index of wholesale prices is now over 4½ times pre-war. The working class cost-of-living indices for different industrial centres in the country vary from over 3 to over 4 times the pre-war level. The increase in money incomes consequent on inflation has altered the distribution pattern of incomes, but the level of real income per head at present is probably no higher—and may well be lower—than, say, in 1939-40.

(ii) The average area under cereals for the three years ending 1949-50 was 183·8 million acres, as compared to an average of 167 million acres for 1936-37 to 1938-39, while the production of cereals for the corresponding periods was 44·2 million and 46·1 million tons respectively. These figures are not exactly comparable because of differences in coverage and certain changes in the machinery of reporting. But, broadly speaking, the fact remains that the increase in area is not reflected in a corresponding increase in production. In spite of substantial imports of foodgrains from abroad in recent years, *per capita* availability for domestic consumption of cereals now is lower than before the war. Partition has upset the balance of the economy by transferring to the category of international trade the movement of essential raw materials like cotton and jute, the production of which in the Indian Union is seriously below requirements.

(iii) Although production in respect of several industries has increased substantially, yet, in some major industries like cotton, jute, and sugar, the current level of output is much below capacity.

(iv) During the war years, building activity for civilian purposes was practically at a standstill. In the post-war years, it has been on a restricted scale. This, coupled with the large increase in urban population during the last decade, has created an acute housing shortage and has aggravated the already serious over-crowding in the towns and cities.

(v) The Partition of the country has led to large movements of the population across the new boundaries. The number of displaced persons who came to India from West Pakistan has been estimated at 4·9 million, and of those coming from East Pakistan at 2·6 million. The problem of relief and rehabilitation of these displaced persons has had to be faced on an emergency basis. Considerable progress has been made in regard to the settlement of displaced persons from West Pakistan. A great deal yet remains to be done in regard to the rehabilitation of migrants from East Pakistan. This will make a further demand on resources and will also take some time.

15. Thus, high and rising prices, shortages of raw materials, of essential consumer goods, and of housing, and the relief and rehabilitation of displaced persons constitute the immediate problems for which the First Five Year Plan must provide an answer. Part of the present economic discontent in the country is due also to the fact that in the face of the hardships caused by the various factors mentioned above, some unscrupulous sections of the community are able to make illegitimate gains through blackmarketing and profiteering. All the resources of Government and the community should be brought to bear on measures for eradication of these evils.

LONG-TERM ECONOMIC TRENDS

16. It would be a mistake, however, to regard the present disequilibrium and maladjustments in the economy as due entirely to the abnormal conditions of the war and postwar years. Viewed over a long period, the Indian economy has been more or less

stagnant and has failed to meet the demands of a rapidly growing population. This will be seen from the following long-term trends in the economy:—

(i) The population of the Indian Union (excluding Jammu and Kashmir) has increased from 235·5 million in 1901 to 356·9 million in 1951—an increase of about 52 per cent. over the half-century. The rate of increase for the first two decades was relatively low, but it has risen since then. Between 1921 and 1931, the increase was 11 per cent; for 1931-41, it was 14·3 per cent; and, for 1941-51, it was 13·4 per cent.

(ii) There has been very little change in the occupational structure, despite considerable development of industries. In 1911, about 71 per cent. of the working population was engaged in agriculture; for 1948, the National Income Committee puts this figure at about 68·2 per cent. Agriculture affords employment for only a part of the year, so that a large proportion of the workers engaged in this occupation are more or less idle for the rest of the year. There is thus a great deal of chronic under-employment in the country.

(iii) Sown area per person has shown a steady tendency to decline. For British India, sown area per person went down from 0·88 acre in 1911-12 to 0·72 acre in 1941-42. For 1948, *i.e.*, after partition, the estimated sown area per person in the Indian Union works out at 0·71 acre. Evidence as to the trend of yields per acre is not conclusive. From some of the published figures available, it would appear that in respect of certain food crops, at any rate, the trend has been downward. It is difficult to assess the over-all trend of productivity in agriculture, but the broad picture that emerges suggests conditions of stagnation in this respect.

(iv) In the industrial sector, there has been considerable development during the last 30 years or so. The policy of protection adopted in 1922 led to a rapid development of several industries. such as iron and steel, cement and sugar. World War II gave a further fillip to industrial development. In spite of all this, organised industries of the modern type afford employment to only about 2·4 million workers. Thus, the industrial sector has not grown at a rate rapid enough even to offset the pressure of population on land, much less to provide, on balance, a rising standard of life for a growing population. And, several of the industries which grew up in wartime have not yet been firmly established.

17. Data on national income over a period of years are not available on a comparable basis. It is not possible, therefore, to indicate the long-term trend in this respect, so as to get a synoptic picture of the economy. It may be pointed out, however, that the estimate of national income for 1948-49 works out at Rs. 255 per capita, which, allowing for changes in prices, does not indicate a level of real income higher than that suggested by some of the earlier estimates. There is little doubt, on the whole, that the economy has, for a long period, remained geared to a low level of production, and, therefore, inevitably, of consumption. The margin of savings available for development is but small.

18. It is these long-term trends which explain the persistence of mass poverty, and, unless they are corrected through utilisation of resources which are either inadequately or inefficiently utilised at present, a substantial rise in the standard of life cannot be secured.

19. In the formulation of the Plan, due attention must, therefore, be paid to this basic problem of development in addition to the problem of post-war or post-Partition readjustments.

POPULATION PRESSURE: ITS BEARING ON DEVELOPMENT

20. A significant feature of one of the trends mentioned above, *viz.*, the accelerated growth of population during the last two decades or so, calls for special comment here. This acceleration has been the result, it appears, not of an increase in the birth-rate, but of a decrease in the death-rate. The recorded birth and death-rates in 1949 were 27·6 and 16·4, as compared to 38 and 34 respectively, for the first two decades of the present century. Allowing for the fact that there is considerable under-reporting of births and some under-reporting of deaths, a recent estimate puts the actual birth and death-rates for the period 1931-41 at 45 and 31 respectively, as against 49 and 43 respectively for 1901-11, which means a doubling of the survival rate. The recorded death-rate has been declining significantly over the last 25 years. It would appear that of late the machinery of recording birth and death-rates has not been functioning well, so that the year-to-year variations in these rates may not be of any real significance. But, variations over a long period in terms, say, of decennial averages do reflect the underlying trend, and it is clear that the decennial average death-rate has been falling

over the last 30 years or so. This fall is, in all probability, the result of an improvement in medical facilities, better control of epidemics and the general progress of medical science resulting in the discovery of new drugs, preventive and curative, which save human life by the thousand. If, as seems likely, this trend continues, the present rate of growth of population will be maintained for several years to come; it may even go up a little.

21. In planning for a progressive improvement in living standards, the implications of this rapid growth of population need carefully to be considered. While it may be difficult to say what the optimum level of population for India should be and while it would also be wrong to underrate the potentialities of modern science and techniques to augment the productive capacity of the country, it is clear that, under present conditions, an increase in manpower "resources" does not strengthen the economy but, in fact, weakens it. The population problem is complex and it has several aspects, economic and social. It is necessary in the present context only to stress the fact that unless measures are initiated at this stage to bring down the birth-rate and thereby to reduce the rate of population growth, a continuously increasing amount of effort on the part of the community will be used up only in maintaining existing standards of consumption. With all the effort that the First Five Year Plan will represent, it will be possible barely to restore by 1955-56 the pre-war standards of consumption in regard to essentials like food and clothing. Increasing pressure of population on natural resources (which must inevitably be limited) retards economic progress and limits seriously the rate of extension of social services, so essential to civilised existence. A population policy is, therefore, essential to planning.

THE PERSPECTIVE OF PLANNING

22. The discussion of the economic and social pattern to be attained and the brief analysis of economic trends, recent and long-term, attempted above, provide the necessary perspective for planning at the present juncture.

23. The problem before the country is, firstly, to rectify the disequilibrium in the economy caused by the War and Partition, and, secondly, to initiate the development of certain basic resources so as to lay the foundation of more rapid economic growth in the future. The rehabilitation of displaced persons links up with both these aspects. Further, in finding solutions to this two-fold

problem, considerations of social justice and the need for a progressive reorientation of the economy along the lines suggested in the Constitution have to be borne in mind.

The Problem of Competing Objectives

24. Within this broad perspective, there is the further problem of choice between competing objectives. Maximum production, full employment, lower prices, greater equality of incomes—all these—cannot, under certain conditions, go together. Each one of these objectives is, in itself, desirable, and there is, therefore, need for a balanced emphasis on each. A plan has, in other words, to work in terms of a scheme of priorities as between these objectives, laying more stress on some and less on others. This problem of balancing competing objectives is implicit in all economic decisions; it is not peculiar to planning. But, planning brings it out to the fore and necessitates a reasoned decision. The quality of a Plan depends on the soundness of its judgments regarding priorities as between objectives. For, it is only if these judgments are sound that consistent policies can be formulated.

25. An illustration or two may make the point clear. During war time, full mobilisation of resources for military purposes becomes a major objective of policy. To secure this, the community is forced to suffer a fall in the standard of living and may even have to sacrifice for the time being, certain vital freedoms. In fact, all considerations, other than the furtherance of the war effort, are pushed into the background. Similarly, faced with the problem of rearmament, several countries have recently had to decide to sacrifice civilian consumption, partly through higher taxation and partly through higher prices and costs of living. For the pursuit of major objectives, it becomes necessary to sacrifice certain minor objectives.

26. The conclusion is that in the pursuit of varied objectives, there emerges at each stage in a country's development, an optimum combination, and the task of economic statesmanship is to keep close to this optimum. In the paragraphs below, an attempt is made to set forth the main considerations relevant to a determination of priorities as between objectives at this stage.

27. For an improvement in the present economic situation in the country, an increase in the output of essential consumption goods in the immediate future must have a high priority. It is necessary at

the same time to undertake certain projects designed to strengthen the economy and make it capable of attaining progressively higher levels of output in course of time. This means that the rate of investment in the economy, taking short-term and long-term projects together, has to be fairly high. A large and early increase in consumption and a high rate of capital formation cannot go together. It, therefore, becomes necessary to choose between the two, to decide upon the relative emphasis to be placed on each. In a country with low standards of living, the margin of savings is small, so that a high rate of investment for purposes of capital formation may cause serious hardship. On the other hand, unless capital formation is stepped up substantially, the community will have to go on living from hand to mouth. and the rate of economic advance will be small. To some extent. the problem can be solved through mobilisation of idle resources. and steps can be taken to see that the total consumption of the community does not rise to the full extent of the net addition to production secured through such mobilisation. However. the very factors that have retarded economic development are likely, in the short period, to limit the rate at which idle resources can be used effectively for increasing production. It is also likely under these conditions that the bulk of the increased incomes will be devoted to consumption. The need for some sacrifice of current consumption in the interest of capital formation will, therefore. remain. In a country like India, where a large proportion of the community has a subnormal standard of living, there are limits beyond which capital formation cannot be increased. And, yet, effort has to be made to secure capital formation to the maximum extent. This means that while the minimum standards of consumption of the vulnerable sections of the community must be safeguarded, the bulk of the community must keep down its consumption. Under certain conditions, this reduction in consumption may be brought about through an increase in prices, but this would mean, in effect, that the very classes that have to be protected will suffer. Moreover. the price level in India is already very high and an accentuation of inflationary trends has, therefore, to be avoided. Capital formation, under these conditions. has to be promoted through savings, voluntary or compulsory. While the necessary sacrifice in consumption has inevitably to be spread as widely as possible, the higher income groups have a special obligation to fulfil in this respect.

28. It is also necessary that the Plan provides for fuller employment. Unemployed manpower has to be supported today by the rest of the community and it is, therefore, a factor depressing standards of living. Of all the corrosive factors in modern economic life, unemployment is probably the most serious. The social

cost of such unemployment is, therefore, larger than its economic cost. If, on the other hand, this manpower could be mobilised and put to productive use, it would turn into a source of strength. The question is along what lines this is to be planned.

29. The analogy of advanced countries where full employment is accepted as a goal of policy is not directly applicable to the conditions of a backward economy. In the case of the former, the problem is associated with a phase of the trade cycle. There are no technical difficulties in the way of utilising the idle manpower. For, under conditions of depression, there exist in the economy idle plant and equipment along with unemployed labour, and the problem is one of insufficiency of demand in the economy. In an underdeveloped economy, the problem is mainly structural in character. Corresponding to idle labour, there are no adequate supplies of other cooperating factors of production, such as land and capital equipment. If a programme of full employment increases money incomes in the community but does not increase production correspondingly, the main outcome will be to stimulate an upward movement of prices.

30. In the ultimate analysis, a programme of full employment can be implemented only after some progress has been made in removing the structural deficiencies in the economy which now stand in the way of its expansion. A development plan is essentially an effort to create conditions tor full employment. Rapid extension of irrigation and the introduction of more intensive agriculture is the most important single step in the direction of remedying chronic underemployment. The total volume of employment in a community depends upon the level of productive activity. Measures which promote the latter directly create new opportunities for employment, and incomes, thus obtained, constitute a demand for still more labour. Thus, an expanding and diversified economy is, in the long run, the best guarantee for full employment.

31. In the reduction of unemployment and underemployment, cottage and small-scale industries have an important part to play. In a country in which labour is plentiful relatively to capital, preference must be given, wherever technical conditions permit, to labour-intensive rather than to capital-intensive processes. Cottage and small scale industries have certain advantages. They do not involve the use of elaborate techniques; if raw materials are locally available, these industries can cater effectively to local markets. The problem here is mainly one of organisation. The individual worker is, under present conditions, often unable to find the

necessary finance to purchase the raw material or to adopt efficient techniques or to market his product on advantageous terms. These handicaps have to be removed through cooperative organisation and well-planned State aid.

32. A judicious location of new industrial units with due emphasis on balanced regional development is also a vital step in the direction of a wider diffusion of employment opportunities.

33. It is possible in this manner to move in the direction of full employment, but there are difficulties in the way of an acceptance of full employment as an immediate objective of policy. For an expansion in employment opportunities on a scale large enough to meet the requirements of a rapidly growing population is a matter of time, and, in the adoption of measures to create more employment, due attention has to be paid to an improvement in the efficiency of cottage and small-scale industries. A higher level of employment is desirable, but if it requires sacrificing indefinitely the fruits of technical progress, the loss to the community over a period may be much greater than the gain. There are, as mentioned above, advantages in small scale production and local distribution which favour the establishment and survival of cottage and small-scale industries efficiently organised, and these must be supported.

34. Finally, we may consider the objective of a reduction in economic inequalities. We have today a wealth and income structure which is far from satisfactory and a more equal distribution of wealth and a more equal sharing of the national product by the different sections of the community are necessary not only from the point of view of social justice, but even for full mobilisation of the productive resources of the community. Economic equality and social justice are conditions indispensable for the survival of democracy, and a carefully worked out policy for reduction of disparities in income and wealth is the *sine qua non* of planning. On the other hand, a hasty implementation of measures intended to bring about economic equality may, in the short run, affect savings and the level of production adversely; it may even make it difficult to effect a smooth transition to the type of planned economy we envisage. This does not mean that existing conditions have to be continued; nothing, we are convinced, is likely to damage the prospects of democratic planning so seriously as a failure on the part of the more well-to-do classes to adapt themselves to the implications of the new economic and social pattern which is to be built up in the country through planning. The rate at which progress may be made in the direction of equality has inevitably to be

adjusted to the requirements of the present economic situation. Also, for reduction of disparities in income and wealth, only democratic methods have to be used. But, economic equality and social justice rank so high among the objectives of planning that at least the first steps in the right direction have to be initiated immediately.

35. Large-scale investment by the State for basic development is a major instrument for securing economic equality, for, it is through such investment that the millions of agriculturists and other rural workers in the country will be able to build up economic strength. Rapid development of the rural economy is, under present conditions, the most effective way not only of increasing production but also of initiating a process of levelling up of incomes in the lowest strata. This process increases productivity and incomes precisely where these increases are most needed; it is a step in the direction of narrowing the disparity between the conditions prevailing in rural and urban areas. This positive approach to the problem of economic inequality has great potentialities, and we recommend that this approach should be followed consistently by the State in planning its investments.

36. The abolition of Zamindari, the fixation of fair rents for tenants, the provision of security of tenure for the cultivator and the progressive substitution of usury by organised credit at reasonable rates are also steps calculated to promote economic and social equality. Rapid progress in this direction is being made in almost all States, the significance of which is sometimes not fully appreciated. Our recommendations later in this report for reorganisation of the rural economy in the direction of cooperative village management are intended to create conditions in which the pursuit of economic equality and social justice will be reconciled with the urgent need for increased production.

37. In addition to the public investment policy and legislative measures referred to above, the State has to adopt fiscal measures for promoting economic equality. Progressive taxation, redirection of public expenditure and the imposition of death duties are effective devices to be used for the purpose.

38. As regards progressive taxation, the major problem, at any given moment, is of balancing the advantage of greater equality against the disadvantages of a likely fall in savings and capital formation in the private sector. The rates of direct taxation at present in the highest income ranges are close to the rates prevalent in countries, like the U.K., which have a highly progressive system

of taxation. Although disposable incomes left after taxation in these ranges are too high in India relatively to the general level of incomes in the country, any material increase in direct taxation is at this stage likely to affect the capital market adversely.

39. We should like to stress in this connection the relevance of tax evasion to this problem of using fiscal measures for reducing distributional inequalities. It would appear that at present a large number of incomes in the higher income ranges escape the payment of income tax and super tax, and there is in these and in other ranges of income an understatement of incomes. There is considerable leakage on account of non-declaration of profits made in black markets. Stringent measures have to be taken to put a stop to tax evasion, and the machinery for assessment and collection of income tax must be strengthened so as to enable it to deal effectively with this problem.

40. In determining the appropriate rates of personal taxation, the main point for consideration is the extent to which personal savings are to be relied upon hereafter for maintaining capital formation at the desired level. In more highly developed countries, corporate savings play a far more important role in this respect than private savings. A similar trend in this country has to be encouraged. The Indian tax system recognises the principle of lower taxation of undistributed profits. The needs of the public exchequer are at present paramount and it may be difficult to reduce the taxation of company profits to any significant extent at the present juncture. We would suggest, nevertheless, that Government should examine the position and see if further measures could be adopted to encourage a larger ploughing back of profits. There are, at present, large arrears of depreciation and replacement to be made up by organised industries, and it is in their own interest to keep down the rate of dividends to as low a level as possible. We would commend to private industry the practice followed in several other countries of adopting for a limited period a voluntary freeze on dividends. This would accord with the overall disinflationary policy of Government and would, in combination with a policy of preventing the money incomes of labour from rising in the immediate future, help materially in keeping down prices.

41. A planned economy alters in course of time the role of different classes of the community in providing savings and undertaking new investment. Redistributive taxation must take this fact into account. Adequate information is not at present available about the savings habits and capacities of the different groups of income earners in the country, or about the forms of investment

which these different classes prefer. Measures must, however, be taken to encourage small savings which will, we expect, play an increasingly important role as incomes in the lower ranges increase.

42. The problem, moreover, is not one of merely correcting inequalities of income as they arise, but of reducing the inequalities of wealth which are to a large extent at the root of inequalities of income. Progressive taxation of incomes can prevent further accentuation of inequalities in the distribution of wealth, but it can do little to reduce existing inequalities. The device of death duties through which an increasing proportion of accumulated wealth is taken over by the State at each successive transfer constitutes a most effective way of reducing inequalities in wealth and income. It takes time to affect the pattern of incomes in the community in this manner, but death duties are a measure whose effects, though slow, are definite, and an early enactment of the necessary legislation is, therefore, to be strongly recommended.

43. The approach to the problem of economic equality and social justice has thus to be, on the one hand, through positive measures intended to level up incomes and economic status, and, on the other, through corrective action in respect of glaring inequalities. In the paragraphs above, some of the lines of advance towards the goal are indicated. The feasibility and scope of other measures that have been suggested from time to time for reduction of inequalities are being examined.

TECHNIQUE OF PLANNING

44. This brings us to the problem of the techniques of planning. A possible approach to the problem is, as mentioned earlier, through a more or less complete nationalisation of the means of production and an extensive system of governmental controls on the allocation of resources and on the distribution of the national product. Judged purely as a technique of planning, this may appear a promising line of action. But, viewed against the background of the objectives outlined above, and in the light of practical considerations, such an expansion of the public sector is, at the present stage, neither necessary nor desirable. Planning in a democratic set-up implies the minimum use of compulsion or coercion for bringing about a realignment of productive forces. The resources available to the public sector have, at this stage, to be utilised for investment along new lines rather than in acquisition of existing productive capacity. Public ownership of the means of production may be necessary in certain cases; public regulation and control

in certain others. The private sector has, however, to continue to play an important part in production as well as in distribution. Planning, under present conditions, thus means, in practice, an economy guided and directed by the State and operated partly through direct State action and partly through private initiative and effort.

45. In the public sector, the responsibility for initiating new enterprises and managing established ones will rest on Government (including State Governments and agencies set up by the Centre and/or by States). In the private sector, the initiative and responsibility for the development of new enterprises and for the management of existing enterprises will remain primarily with private entrepreneurs. The two sectors will not, however, be watertight compartments. There will be numerous points of contact and interaction between the two. In certain spheres of activity, some units may be run by private enterprise and some by Government. Some units, again, may be worked on the principle of joint participation.

46. The respective roles of the State and of private enterprise in the present stage of economic development have been set forth in the Industrial Policy Resolution of April, 1948. The broad line of policy in this respect is enunciated in that Resolution in the following terms:

> "......for some time to come, the State could contribute more quickly to the increase of national wealth by expanding its present activities wherever it is already operating and by concentrating on new units of production in other fields, rather than on acquiring and running existing units. Meanwhile, private enterprise, properly directed and regulated, has a valuable role to play".

47. The Resolution envisages a segment of the economy, (arms and ammunition, atomic energy and railways) as being exclusively under Government ownership and control. In respect of certain other industries, such as coal, iron and steel, aircraft manufacture, etc., the State is to be responsible for further expansion, except to the extent that the State considers it necessary to secure the cooperation of private enterprise. The rest of the industrial field is normally to be left open to private enterprise, individual or cooperative. In addition, the Resolution lists 18 industries which will be subject to regulation and control by the Central Government, and reiterates the right of Government to acquire any undertaking if that becomes necessary in the public interest and also to intervene whenever the progress of an industry under private enterprise is not satisfactory.

48. The Industrial Policy Resolution makes no direct reference to the role of the State in the field of trade. The governing considerations must broadly be the same in both cases. By and large, trade will remain in the private sector, subject to regulation and control by the State as in the case of industry. There are, however, special considerations in respect of trade. There is a tendency in countries operating on small commodity margins for resources to go into the distribution of goods rather than their production; investment in trade rather than in industry yields larger and quicker profits. Beyond a certain point, this tendency will come in the way of development. One way of dealing with this problem is to organise trade on co-operative lines so as to reduce the profit margins of private traders. But, it may also be necessary for the State to enter the field and divert to itself the profits that might otherwise have gone into more or less unproductive investment. State trading in specific lines through corporations specially set up for the purpose may prove a useful corrective to private trade and may, in addition, help regulate the prices of certain commodities subject to wide fluctuations. A beginning in this direction can perhaps be made in the field of export trade.

49. In determining the respective spheres of the public and the private sector and the means of keeping the two in step, the crucial test in each case is the possibility, through the arrangement proposed, of securing desired results. It must be emphasized, however, that a planned economy involves increasing coordination between the two sectors. Planning implies the acceptance of overall objectives and standards of performance all along the line. The private sector functions mainly through price-and-profit incentives; and plans for the private sector are worked out in consultation with the representatives of private business and industry. The economy is, however, a single whole. For certain purposes, it may be viewed in sections, but the plans of the public sector and the private sector must, on the whole, produce a coherent picture.

50. The harmonious working of the two sectors will depend, to a large extent, on decision arrived at, by mutual agreement, between the representatives of Government, business and industry and labour. An essential element in the Plan will, therefore, be the creation of suitable machinery for such consultation and collaboration. In the field of organised industry this presents little difficulty. For agriculture and small-scale production, it will be necessary to build up local and regional bodies as well as functional associations which can play an effective role in the formulation and implementation of the Plan.

51. It will be necessary, at the same time, to operate a system of controls. This will comprise (a) capital issues control, (b) licensing of new enterprises and of large extensions of existing ones, (c) foreign exchange allocations, and import and export controls, and (d) price and physical controls. These controls are not to be viewed as restraints on private enterprise, but as essential instruments for securing the targets defined in the Plan, the attainment of which is, *ex hypothesi*, in the interest of the nation as a whole, though it may impinge on some private interests. In the planning, administration and periodical reviews of these controls, the machinery for consultation and co-operation with the private sector will have an effective share.

52. The practical functioning of a centrally directed economy, as outlined above, will continually throw up new, and at times difficult, problems of adjustment between the public and private sectors. In a planned economy, private enterprise has to visualise for itself a new role and accept, in the larger interest of the country, a new code of discipline. Private enterprise, like any other institution, will endure and justify itself only to the extent to which it proves to be an agent for promoting the public good. Given a recognition of this fact, given, in other words, a general acceptance of the objectives of the Plan and a readiness on the part of all sections of the community to play their part in the fulfilment of these objectives, there need be no difficulty in the way of successful implementation. Democratic planning, like democracy itself, is an adventure; it has its risks and uncertainties. But, if it succeeds, it will have provided a clue to some of the most difficult problems in economic and social organisation with which this country, along with many others, is faced.

Price Policy for the Plan

53. For the fulfilment of the objectives defined in the Plan, it is necessary to have a price policy which secures an allocation of resources in conformity with these objectives. In the private sector, decisions are made in the light of prevailing prices and expectations as to their future trend. Unless the alignment of prices favours the use of resources along the lines indicated by the targets worked out for this sector, there is likelihood of a serious discrepancy between the results expected and the actual achievements. A change in price relationships in one line has its repercussions on the distribution of resources in several other lines. In the absence, therefore, of an effective policy aimed at maintaining an appropriate structure of prices, planning in respect of the private sector cannot succeed.

54. In the public sector, the direction of investment is not governed exclusively by the profit-and-loss calculus; it has to take into account wider social considerations. So long as the State confines

itself to a narrow sphere of activity, the economic aspect of its investment policy may not appear to have any great significance from the point of view of the economy as a whole. When, however, the State assumes responsibility for overall direction of the economy and embarks upon an extensive programme of investment, it has to balance carefully the economic costs and benefits involved. Even in those cases where the State departs from the strict economic criterion, it must, as a first approximation, attempt a balance between costs and returns. Instability of prices would come in the way of such balancing. It would thus be as much of a hindrance to a proper allocation of resources in the public sector as to the attainment of targets in the private sector.

55. Further, where the investments by the State have to be planned in advance over a period of years, a reasonable stability of prices and costs has necessarily to be assumed. Without such an assumption, it is impossible to estimate with any degree of certitude the level of expenditure which the State can undertake on the basis of the resources available. A change in prices does not mean merely a mechanical revision of the financial estimates included in the Plan; it changes the very perspective of the Plan.

56. The fact that the Plan is to come into operation at a time when prices are already at a high level and the structural factors in the economy make it particularly susceptible to inflationary stimuli underlines the need for a positive price policy. The index of wholesale prices is now over 450, as compared to 260 at the end of the war. The rise in prices since August, 1947, has been of the order of 50 per cent; since the Korean War, it has been about 16 per cent. A high level of public expenditure, activation of latent inflation and failure of production to rise significantly have been mainly responsible for the persistent upward trend in prices. The non-availability of imports in adequate quantities and, of late, a sharp rise in prices abroad have also contributed to this situation. While controls and other measures adopted by Government from time to time have acted as checks, the price situation has, on the whole, continued to deteriorate.

57. The rise in the general level of prices has been accompanied by large changes in the structure of relative prices. Although the prices of foodgrains are at record levels, the prices of raw materials have risen even more sharply, especially since the Korean War. The resulting structure of relative prices exerts an upward pressure on costs of living and on production costs all round. If these in turn are allowed to rise, the effect would be to set up a further round of price increases.

58. In the light of the above, the objective of price policy for the next few years should be, firstly, to prevent a further rise in prices and, to the extent possible, to bring them down; and, secondly, to maintain the parities between sectional prices, such as those of food-grains and raw materials, so as to provide the right measure of incentive for producers in these lines.

59. The main ingredients of a programme of holding in check, and, in due course, of reducing, the general price level ~~in check~~ are:

(i) A disinflationary fiscal policy;

(ii) An export-and-import policy designed to make full use of the sterling balance releases available;

(iii) A monetary policy which acts as a brake on speculative investments and encourages a larger flow of savings on to the market; and

(iv) Increase in output by way, for instance, of longer hours of work or through greater technical efficiency.

60. It is important, however, to recognise that, under present conditions, it may be difficult for Government to follow a strong disinflationary fiscal policy at the same time as it embarks on a large-scale development programme. For, while the resources it can raise consistently with the objective of maintaining a certain level of investment in the private sector are limited, the minimum investment expenditure necessary to promote long-term stability in the economy is fairly high. Land which has been starved for many years has to be irrigated and manured; the lag in replacement of machinery and other capital equipment must be made up; and, provision has to be made for widening the capital base of the economy on which its production can expand. All the expenditure under these heads may not show immediate results and, to that extent, inflationary pressures in the economy will be accentuated. If foreign aid is available on an adequate scale to supplement whatever domestic resources are available, this would be of great value in keeping down inflationary pressures. Should such aid be not available to the required extent, the choice before the community would lie between a reduction in present levels of consumption and a reduction in the scale of investment. The consequence of the latter course may well be a steady contraction in productive capacity and, therefore, a corresponding or greater reduction in the resources that the community can, in the future, utilise for development. Even if this course is favourable to a moderation of inflationary pressures in the immediate future, it is hardly conducive to long-run stability either of prices or of the economy as whole. In other words, an undeveloped country after a long period of disturbance and dislocation may arrive at a stage

where a choice has to be made between relieving immediate tensions and avoiding what may turn out to be a more serious situation in the future. Under these conditions, while it is important to avoid a scale of investment expenditure which would aggravate existing tensions and thus possibly jeopardise the attainment of long-term stability, it may not be feasible to reduce it to a level at which a disinflationary fiscal policy can be effectively pursued. A disinflationary fiscal policy must, nevertheless, remain an essential objective.

61. An economy, faced with persistent shortages, needs a large import surplus. It would be desirable, therefore, to aim at utilising to the full extent the releases from sterling balances. An improvement in export earnings should immediately be followed by relaxation of restrictions on private imports, especially of commodities which enter directly into the cost of production or cost of living. Imports on government account have also to be planned on similar considerations. There are, however, some practical limitations to this policy. The prices obtainable for exports depend on world factors and may, therefore, be subject to large variations. Imports may not be available in required measure, especially in respect of commodities like foodgrains which would be most effective in holding prices; there is at present a world shortage of raw materials. Rearmament in the major exporting countries may raise the prices of such imports as we can secure. If foreign aid is available for financing development expenditure, the sterling balances could be used for importing consumption goods and so to bring down domestic prices. On the other hand, if sterling balances have to be used for financing the purchase of capital goods and equipment, this would reduce the impact of a high level of investment expenditure, but would not contribute positively to a reduction in prices in the immediate future.

62. Similar, and essentially technical, considerations govern the use of monetary policy for control and reversal of inflationary trends. The objective is, on the one hand, to encourage savings and, on the other, to discourage socially undesirable or economically less urgent investment. Monetary policy is, however, an instrument to be skilfully used. There is at present a serious shortage of working capital and tighter credit may react adversely on the legitimate needs of industry and trade. The credit policy of the central bank affects directly the capital market and is linked up with the fiscal operations of Government. The fact that the Indian money market has an unorganised segment not fully amenable to central control has also to be taken into account. Nevertheless, monetary policy has an effective part to play in the control of inflation. There is also the wider problem of credit policy being adapted to the requirements of the Plan. From both these points of view, effective control of the credit structure by the Reserve Bank is of crucial importance. The

Reserve Bank has sufficient powers under the new Banking Companies Act to regulate and supervise the credit policy of banks. These powers and the prestige which the Bank commands will have to be used increasingly to prevent bank credit from flowing into speculative channels. The problem at the present time is not one of restraining investment as such in order to reduce prices; a high level of investment in the public as well as in the private sector is, in fact, an essential feature of the Plan. What is needed is, on the one hand, a curb on excessive investment in speculative trade and, on the other, measures designed to increase the volume of savings available for productive investment.

63. The essence of an over-all price policy for the immediate future is, thus, a coordinated movement along the lines indicated above. If international tensions abate in the near future, inflationary pressures all the world over will recede. This will be of benefit to the Indian economy. The large purchases of food by Government this year and the food loan from the U.S.A. will help reduce materially the food shortage in the country, and with a reasonably favourable monsoon, a general improvement in food situation may well be expected. Nevertheless, inflationary pressures will continue to operate in the economy and it will be necessary to maintain and improve upon the existing system of controls for an effective check on the general level of prices and also in order to maintain a balance between sectional price levels.

CONTROLS

64. Reference has been made above to some of the controls which economic planning necessitates. A Plan has, by definition, certain objectives and, in order that these are realised, it proposes certain targets of production and consumption. The determination of the volume and direction of investment, the regulation of foreign trade, the conservation of foreign exchange and measures to safeguard the standards of consumption of certain sections of the community are all integral and interrelated parts of a Plan. For planning, a system of controls covering these aspects is necessary. In an economy in which the allocation of resources is not within the direct control of the State, the defined targets cannot be attained without the help of a coordinated system of controls.

65. The desirability of controls has often been questioned mainly because most of the controls operating at present were imposed during the war, admittedly on a temporary basis. It is not always realised that in the post-war years, the Indian economy has been

subjected to further strain and has not been able to settle down to a new and more satisfactory position of equilibrium. So long as this situation continues and until the availability of goods comes up to a level better adjusted to the volume of purchasing power in the hands of the community, controls cannot be dispensed with. The conditions for a smooth functioning of an unregulated economy do not exist at present. and the social responsibilities which fall upon a modern State just cannot be discharged without the aid of controls. The need for certain controls such as import control or of foreign exchange control has rarely been questioned even by those who advocate decontrol. It is mainly in respect of the control on foodgrains prices and on prices of commercial crops that questions arise from time to time either as to their desirability or to their coverage. It is possible in formulating an approach to this problem to be misled by the volume of opinion against controls. An analysis of this opinion will reveal that different sections of the community are opposed to different controls, mainly from a limited point of view. The lay citizen cannot always visualise the consequences of relaxation or abandonment of one particular control on the system of controls as such and is not, therefore, in a position to view the problem in an overall perspective. The adverse repercussions of decontrol in 1947-48 warrant caution in the adoption of measures of partial or complete decontrol in future. The fact that in the black market prices have continued to be much higher than controlled prices and that, nevertheless, consumers have had to make considerable purchases at these prices are indicative of a significant disequilibrium between demand and supply. A substantial reduction in black market prices and the availability of ample supplies at controlled prices are essential pre-requisites to any consideration of decontrol. If prices are to be stabilised even below the level of controlled prices, the increase in supplies necessary would be of a still larger order.

66. A basic requirement of price policy is effective regulation of foodgrains prices. This, however, is not possible unless the prices of competing crops are regulated. In the absence of such regulation, there will be a natural tendency to substitute non-food crops for food crops. So long as the producer of non-food crops can get prices which are relatively higher than those obtained by the producer of food crops, the production and procurement of these latter will tend to be handicapped, and it will be difficult for Government to justify such partial control either on economic or on social grounds. Similarly, if the producer of foodgrains is to be expected to part with his surplus at a reasonable price in order that Government is able to meet its obligation to feed the rest of the population at reasonable prices, he has a right in return to expect that the essential articles of consumption, tools and implements that he buys from the market will be available to him at reasonable prices.

67. The first step towards a more effective curb on prices is, at the present juncture, to prevent the prices of commercial crops like jute, cotton and oilseeds from going up. The essential principle to be applied in this sphere is that, given the objectives of the Plan and the targets for the production of food and various essential raw materials, the prices of these articles should broadly be such that their relative profitability is more or less the same. In the absence of precise information on costs of production, it may be difficult to administer controls on the basis of this principle. It is clear, however, that large disparities in these prices would militate against the planned distribution of resources as between these commodities and create conditions for a further rise in costs of production and costs of living, and, such disparities must be reduced.

68. Certain considerations governing the operation of individual controls may perhaps be mentioned here. In this sphere there is a real danger of excessive pre-occupation with particular aspects of the problem to the detriment of its generally more vital implications. For instance, it might appear that if an increase in production in a given line is to be obtained, an incentive by way of a higher price ought to be offered. Under present conditions, when an increase in production in almost all lines seems desirable, this way of looking at the problem is hardly appropriate. An incentive offered in one line soon raises costs in other lines and tends to create demands for similar increases in prices elsewhere. It is obvious that successive doses of price incentives in one line after another defeat the very purpose of these incentives and undermine the stability of the economy.

69. It is sometimes argued that where an increase in domestic production is necessary and higher prices have in any case to be paid for imported supplies of a commodity, the domestic producer should legitimately be given the benefit of higher prices. This argument, again, rests on an inadequate foundation. Domestic production in any line is a function of relative profitability as compared to the alternatives open to the producer. So long as the current price gives him some relative advantage, he has an incentive to produce more. Any rise in profits beyond this point would be in the nature of a windfall. It would increase money incomes and add to the strength of inflationary forces. Great caution is, therefore, necessary in conceding demands for price increases. Thus, for an increase in food production to materialise, the proper approach would be through a reduction in the prices of competing crops rather than an increase in food price. For, it is only along these lines that the cost structure can be readjusted in the downward direction and the targets in the agricultural sector realised.

70. While planning does not mean either a complete insulation of the economy from trends abroad or a complete control over all spheres of economic activity, it does imply a price policy which will enable the fulfilment of the targets laid down and, at the same time, maintain a certain balance between the various classes of the community. To this end, it is necessary to reduce, as far as possible, the impact of foreign prices on the domestic level of incomes and distribution of resources. Already, export duties are being levied as part of the general anti-inflationary policy, but under rapidly changing international conditions, there is need for constant adjustments in coverage and rates of levy. If the proceeds of export duties which are in the nature of a windfall are used to subsidise the imports of essential commodities, it would be possible to protect the domestic price and cost structure more effectively.

71. The working of individual controls and the lines along which they need to be improved upon is a matter for continuous review and adjustment in the light of changing conditions. The organisation of the control in each case has to be adjusted to the structure of the industry or trade concerned and there is scope here for a variety of arrangements with due regard to the circumstances of each case. The point to stress here is that each control has to be viewed as part of a system and it must be operated so as to contribute effectively to the fulfilment of the two-fold aim behind the system, viz., the containment of inflationary pressures and the maintenance of relative prices at a level designed to secure the achievement of the targets defined in the Plan.

72. In defining the production and other targets in the Plan, it would of course be necessary to take into account the structure of relative prices that has already evolved and the extent to which, under given conditions, it can be altered through controls. But, once the targets have been fixed, it is necessary to see that price and other incentives operate so as to facilitate their achievement. For creating these conditions, controls are a necessary instrument with a positive function. The maintenance of appropriate parities between prices of foodgrains and of raw materials or between agricultural prices in general and prices of manufactured products, necessitates controls carefully devised and reviewed from time to time in the light of changing domestic and international conditions affecting prices. While the Plan itself has to be adjusted to some of these, there must be within the economy devices which would safeguard to the extent possible the uninterrupted working out of the Plan. Controls have thus a bearing on the general level of prices as also on the structure of relative prices. Their successful operation depends on careful and unbiased assessment of all the relevant facts, and we are inclined

to think that a price advisory council, consisting of technical experts, should be of great assistance in formulating appropriate policy in the sphere of prices and of controls.

73. The successful working of these controls depends on the measure of public support and co-operation which the authorities receive. The public has to be educated into the positive role of controls in a planned economy; the administration of controls has to be improved by placing them in charge of some of the best officers available to Government: distribution of controlled articles should, as far as possible, be arranged through institutions, co-operative and others; and, steps should be taken to stamp out anti-social activities which circumvent and defeat the purpose of controls.

THE APPROACH TO PLANNING

74. We have indicated, in the paragraphs above, the considerations which have been borne in mind in framing the first Five Year Plan. The main features of the Plan are presented in outline in Part II. The Plan, we believe, represents the right measure and direction of effort which the community can and should undertake, not merely to ease the existing strains in the economy, but also to lay the foundation for economic development in the future on sound, democratic lines.

PART II

THE FIVE YEAR PLAN

THE Five Year Plan for the period 1951-52 to 1955-56 aims at completing the various projects which are now in progress and providing for the further development of the economy on a planned basis with the available resources. In the past few years considerable progress has been made in the execution of individual schemes, but they have often failed to produce the best results for the country as a whole for lack of co-ordination and balance. In some cases, schemes started have had to be dropped and, in others, progress has had to be slowed down. There has also been inadequate attention to the need for combining long-term development with the satisfaction of immediate requirements. The lack of balance in the post-war development programmes, which has prevented them from making their full contribution to the rehabilitation of the economy, cannot be corrected at once in all cases. Schemes in progress must be completed even if they do not always conform to the pattern of expenditure we have in view; a certain phasing of outlay on these schemes has to be accepted for technical reasons even though it would involve a rate of development in the initial stages of the Five Year Plan which may be in excess of the available resources in that period. The introduction of an optimum rate and pattern of development will take some time. The Five Year Plan must therefore be regarded as a beginning in the direction of balanced and coordinated development.

2. The line followed in the preparation of the Plan is indicated in the communication addressed to State Governments last year by the Planning Commission:

> "At the present time, the outlook for resources is not encouraging. This very factor emphasises the need for careful husbanding of resources, for augmenting them as far as may be possible, and for careful selection of projects to be undertaken by the Central and the States Governments. It will be appreciated that for financing the bulk of their development programme states have to rely on their own resources and it is only in respect of important schemes which are calculated to increase production directly and substantially that assistance from the Central Government or other resources, e.g., foreign aid, may be possible.

> In these circumstances, in the first five-year plan, apart from existing commitments of an essential or inescapable character, priority has to be accorded to schemes which will develop material and technical resources, and will, in particular, increase the production of food and raw materials, in a relatively short period, over other schemes which, though valuable in themselves, require a much longer period to bear fruit, or call for a range of expenditure which exceeds the present capacity of the Governments concerned. If the available resources (financial, technical and administrative) are concentrated on a limited number of essential schemes and only so much is attempted as it is reasonably possible to achieve, the gain to the economy may be expected to be much greater than if a wide range of problems are attacked simultaneously without deploying sufficient resources at each point."

3. The Plan has been formulated after detailed discussions with Central and State Governments and private industries. In each case, an assessment was made of the proposed plans and of the resources available for their implementation. The problem of the rate and pattern of development has been viewed from the standpoint of the country as a whole, with due emphasis on the need to meet the short-term problems of readjustment and rehabilitation in the economy, and on considerations of regional balance and sustained progress.

MAGNITUDE OF THE PLAN

4. The Five Year Plan covers an outlay of Rs. 1,793 crores on development initiated in the public sector. It is presented here in two parts. The first part, involving an expenditure of Rs. 1493 crores, represents the outlay on development which seems manageable with the resources now in sight. It takes into account the resources that can be raised internally through taxation and borrowing, external assistance which has already been offered to India and which is likely to be available in this period for financing the Plan, and the possibility of being compelled to resort to deficit financing to the extent of about Rs. 290 crores, if no further foreign assistance is forthcoming. This part of the Plan, which comprises largely of schemes in progress, has to be implemented in any case. Deficit financing of the order of Rs. 290 crores, if it has to be incurred, would mean that the economy will have to function under considerable strain in the next few years, and it may prove difficult, for the time being, to effect any

substantial reduction in prices. However, to the extent that sterling balances can be utilised to supplement domestic resources, this strain will be diminished. The problem here is one of choosing between relieving immediate tensions and avoiding what may turn out to be a more serious situation in the future. This is a difficult decision, but on a consideration of all aspects of the problem, we recommend that the choice be made in favour of development. The assumption made in formulating the first part of the Plan, therefore, is taht, if faced with the choice between the continuance of the existing difficulties for some time and the abandonment of the rate of development implicit in an outlay of Rs. 1,493 crores, the country will choose the former.

5. The implementation of the first part of the Plan will barely restore the pre-war availability of essential consumer goods by the end of 1955-56. To attain a somewhat higher rate of progress, the rate of investment will have to be stepped up. A lasting solution of the food problem, for instance, will require doubling the irrigated area within the next fifteen years. Without an increase in the rate of investment, particularly after the first two years of the Plan, it would also be difficult to ensure a balanced and sustained utilisation of the technical organisation built up in connection with the various projects included in the first part. The second part of the Plan, involving an expenditure of about Rs. 300 crores, has been drawn up with these objects in view. The scale of investment expenditure envisaged under it is based on the assumption that the necessary foreign assistance will be forthcoming. The first and second parts together represent, in our view, an order of outlay necessary not only for achieving greater progress in the period of the Plan but for holding out promise of a pace of development that would inspire the country to greater and more sustained effort.

6. The distribution of the expenditure of Rs. 1,493 crores envisaged in the first part of the Plan is presented in Appendix I in some detail. The contents of the second part of the Plan are now being worked out and will be presented in the full report of the Commission. In this part, further provision will be made for railways (to the extent of about Rs. 100 crores) as well as for schemes which are technically sound but have had to be excluded from the first part.

DEVELOPMENT EXPENDITURE IN THE PRIVATE SECTOR

7. The Five Year Plan relates, as mentioned above, to development initiated in the public sector. The outlay of Rs. 1,793 crores, however, would cover also assistance to private agencies in the field

of agriculture, transport, cottage and small-scale industries, and certain large-scale industries. Such assistance would represent over one-eighth of the total expenditure.

8. It has not been possible, with the data at our disposal, to estimate the aggregate resources likely to be available for development in the private sector of the economy in the period of the Plan. These would depend on the total savings of the community available for productive investment. Without adequate knowledge of the resources likely to be available in the private sector, an allocation as between the different categories of enterprise in this sector can have little significance. For agriculture, the targets have been worked out in consultation with States. The attainment of these targets will depend, to a considerable extent, on the effectiveness of the administrative machinery to be set up to assist in the implementation of the Plan and also on the maintenance of an appropriate structure of prices. Large-scale industries form another major section of the private sector. These industries have to play an important part in future development and, although the availability of resources and the fulfilment of targets in respect of them are in general subject to considerations similar to those which apply to agriculture, it is possible to assess the needs and resources of this class of enterprises with somewhat greater accuracy than is possible at this stage for agriculture.

9. The plans for large-scale industries in the private sector are based upon the estimates worked out in consultation with the representatives of the industries concerned. These plans do not have the same degree of definiteness as the Plan for the public sector. Nevertheless, an attempt has been made to estimate approximately the resources likely to be available for large-scale industry in the private sector, and the lines of expansion visualised take into account the rate and pattern of development expenditure in the public sector provided for in the Five Year Plan. It is estimated that large-scale industries in the private sector are likely to require approximately Rs. 250-300 crores in this period for financing the schemes of expansion indicated by us and for making up the arrears in replacement of machinery in the last decade.

10. The development of large-scale industries in the private sector is intended to be complementary to the development of the rest of the economy directly initiated by the State. The one is therefore as necessary as the other for achieving the objectives in view.

PATTERN OF OUTLAY IN THE PUBLIC SECTOR

11. The distribution of the outlay of Rs. 1,493 crores in the first part of the Five-Year Plan reflects broadly the priorities in development that have been kept in view in framing the Plan.

	Outlay during 1951-56 (Rs. crores)	Percentage of total outlay during 1951-56
Agriculture and Rural Development	191·69	12·8
Irrigation and Power	450·36	30·2
Transport and Communications	388·12	26·1
Industry	100·99	6·7
Social Services	254·22	17.0
Rehabilitation	79·00	5·3
Miscellaneous	28.54	1.9
	1,492·92	100·0

The distribution in the second part will also, in the main, conform to this scheme.

12. The primary aim of the Plan is to improve agricultural production. In a predominantly agricultural economy, the tempo of development will depend, in the initial stages, largely on the volume of agricultural production and the surpluses that are available from it. In India, besides the stagnation which has been evident in the agricultural sector, the impact of Partition has also fallen heaviest on this sector. The Plan, therefore, seeks to meet the more glaring deficiencies in regard to agricultural production and thereby to secure a better balance in the economy.

13. The development of agriculture, however, requires progress in a number of inter-related spheres: irrigation facilities must be expanded, fertilisers must become available on a large scale, provision must be made for bringing to the farmer the technical knowledge and equipment necessary for improving agricultural efficiency, and facilities given for developing alternative employment opportunities in rural areas. These have been given the topmost priority in the Plan.

14. In a country of India's size, the development of transport and communications is of vital importance. On it depends to a great extent a more effective utilisation of available resources and the necessary stimulus to further economic expansion. The amount set apart for transport and communications is (including the provision

to be made for railways in the second part of the Plan) over twenty-five per cent. of the total planned outlay, three-fourths of this being on railways which have special needs to be met.

15. Since industrial development is mainly the responsibility of the private sector, and since Governments in the country have other schemes of basic development in hand, expenditure on industries in the public sector is relatively small. About a third of this expenditure is in the form of assistance to private agencies (for steel expansion, ship-building, newsprint, small-scale industries, etc.); the rest represents expenditure on State-owned enterprises, like fertilisers and machine-tools. The main function of the State in this sphere must, for the time being, to create conditions suitable for industrial expansion. There is a large provision in the Plan for the development of power (which will help large-scale as well as small-scale and cottage industries) and to expanding the availability of raw materials from domestic sources. In particular lines, as in the case of mineral development, the Plan provides for new railway facilities which will assist in the production and distribution of the products. For the expansion of cottage industries, the Plan makes provision for improved facilities in respect of technical training and guidance, marketing, credit, etc.

16. In regard to social services. there has been a fairly rapid expansion in the last quinquennium. though the progress made so far is very inadequate in relation to needs. In view of the limited resources available for development, the Plan seeks in the main to consolidate the development initiated during the last five years, complete the schemes in hand, and to provide for only a modest measure of expansion. The highest priority is, however, given to the rehabilitation of persons displaced by the Partition. Special provision is also made for the amelioration of backward classes and for industrial housing, as these represent cases which need early attention. The provision made in the Plan for rehabilitation is exclusive of expenditure on relief to displaced persons.

SHARE OF CENTRAL AND STATE GOVERNMENTS

17. The expenditure of Rs. 1,493 crores in the first part of the Five Year Plan is divided almost equally between the Central and State Governments, the share of the former being about Rs. 734 crores and of the latter about Rs. 759 crores.

(Rupees crores)

	1951-53	1951-56
Central Government	315·89	734·00
Part 'A' States	249·61	559·63
Part 'B' States	79·66	171·00
Part 'C' States	10·07	28·30
Total . .	655·23	1492·98

The expenditure on the Bhakra-Nangal, Damodar Valley, Hirakud and Harike schemes (Rs. 176 crores), and a large portion of the expenditure on refugee rehabilitation will, in fact, form part of the outlay of State Governments and should, therefore, really figure in the State sector. These items have been shown here as part of the Central Government's plan for two reasons: the Centre has some definite commitments in respect of these and, moreover, it is difficult at this stage to foresee the likely distribution of the loans from the Centre for these purposes as between the various States concerned and from year to year. If allowance is made for the expenditure under these heads, the share of the States will amount to about Rs. 975 crores.

18. Broadly speaking, the distribution of responsibility for development between the Centre and the States is based on the premise that the States would concentrate on agricultural and rural development, social services and the expansion of transport and communications falling within their jurisdiction. The States would receive financial assistance from the Centre, the magnitude of such assistance depending on the resources which the Centre can spare as well as on the priorities laid down for the country as a whole. For the development expenditure of the States in the first part of the Plan, it is estimated that about Rs. 211 crores will be made available by the Centre in the form of loans and grants (in addition to assistance for the four major irrigation and power schemes mentioned above and for refugee rehabilitation).

STATE PLANS

19. The following table shows the distribution as between the States of the development expenditure of Rs. 759 crores to be under-

taken by them in the first part of the Plan:

(Rupees Crores)

Part 'A' States		Part 'B' States		Part 'C' States	
Assam .	12·5	Hyderabad .	40·5	Ajmer .	1·61
Bihar .	55·7	Madhya Bharat	22·8	Bhopal .	3·67
Bombay .	120·4	Mysore .	36·6	Bilaspur .	0·42
Madhya Pradesh	43·7	Pepsu .	8·3	Coorg .	0.53
Madras .	137·0	Rajasthan .	15·2	Delhi .	6·02
Orissa .	15·0	Saurashtra .	21·5	Himachal Pradesh	4·48
Punjab .	15·5	Travancore Cochin	26·1	Kutch .	2.68
Uttar Pradesh .	91·1			Manipur .	1·00
West Bengal .	68·8			Tripura .	1·50
				Vindhya Pradesh	6·39
	559·6		171·0		28·30

Further details of State plans are given in Appendix II.

20. The main considerations which have governed this distribution have been the current level of development expenditure, the relative urgency of the schemes proposed and the resources that the States could raise themselves. It has also been influenced to some extent by the need to complete projects already in hand. In allocating financial aid from the Centre for the various State plans, care has been taken to meet as far as possible the requirements of the more backward areas. In allocating Central assistance to Part B States, their special needs for bringing up the level of administration and social services to that of Part A States have been kept in mind.

21. The dimensions of the State plans do not by themselves give an adequate picture of the regional distribution of the outlay in the Five Year Plan. Account must also be taken of the development expenditure covered in the plans of the Central Government, particularly in respect of irrigation and power projects and rehabilitation of displaced persons. States like Punjab, West Bengal, Bihar, Orissa, Rajasthan and Pepsu will thus receive a greater share of the development expenditure in the Plan than would appear from the above table.

REGIONAL DEVELOPMENT

22. A connection of regional dispart development must necessarily be a gradual process. It has to start by laying the foundation for development in areas where potential resources for expansion exist but have not been exploited. This would mean, in most cases, large-scale extension of irrigation facilities for agricultural development, and adequate provision of power and transport

facilities for industrial expansion. In the first part of the Five Year Plan, the limitation of resources and the need to complete projects already in hand have left little scope for initiating new schemes for the specific purpose of correcting regional disparities.

23. From the distribution of the outlay envisaged, it is, however, possible to see the pattern of development which will emerge as a result of the implementation of the Plan. The three major multi-purpose river valley projects—Damodar Valley, Bhakra-Nangal, and Hirakud—are situated in areas of North-East and North-West India which have considerable resources in the form of manpower and raw materials. They are likely to become centres of future development. Besides these projects, there are a number of important irrigation and power schemes distributed over the country. While some of them like the Mayurakshi project in West Bengal and the Harike Scheme in Punjab supplement river valley schemes in these areas, others cover the southern part of the Peninsula. Madras in particular has a number of major irrigation and power projects. In areas which are not favourably situated for major irrigation projects or where the necessary investigations have not been carried out, provision has been made on a large scale for minor irrigation schemes, such as, tanks, wells, canals, and, where possible, tube-wells. In Assam, the emphasis is on drainage projects intended for flood control.

24. In laying out the stages of execution, preference will be given in this five-year period to irrigation rather than power. In particular areas like Madras, Mysore and Travancore-Cochin, however, the expansion of power would absorb more resources than extension of irrigation facilities. In Madras and Bihar, power will be used for extensive electrification of rural areas. Where power in excess of local needs is likely to develop, provision has been made for extension of transmission lines.

25. As mentioned earlier, the outlay on industries in the Five-Year Plan is relatively small, but within the limits set by this provision, the development envisaged will, to some extent, benefit less developed areas in the country. The completion of the newsprint factory in Madhya Pradesh and the establishment of the Rare Earths Factory in Travancore-Cochin for the exploitation of monazite sand and other deposits are cases in point. On the West Coast, the development of Kutch will be stimulated by increased commercial activity resulting from the completion of the Kandla Port and from the railway link connecting this port with the industrial regions in North Bombay.

RATE OF DEVELOPMENT IN THE FIRST PART OF THE PLAN

26. It will be observed that the first part of the Plan involves outlay in the public sector at the rate of about Rs. 300 crores per annum. This would mean, in effect, raising development expenditure by only about ten per cent. above the rate attained in 1950-51 which, however, was nearly twice the rate in 1948-49, the first year after Independence. This part of the Plan is directed not at a spectacular increase in the outlay on development compared to the immediate past but at improving the tone of development through a more effective distribution of resources and through consolidation of the achievements at each stage. If foreign aid of the expected magnitude becomes available, the rate of outlay on development can be stepped up by about a third over the level of 1950-51. This is provided for in the second part of the Plan.

27. The rate of outlay in the period 1951—53 in the first part of the Plan is relatively higher than in the following period. This is explained by the increased tempo of expenditure on irrigation and power schemes which are in operation and which cannot be staggered further without serious repercussions. It may also prove difficult to adhere strictly to the phasing which has been provisionally worked out since, in some cases, it is likely to be more economical to speed up execution.

28. The full advantage of the measures proposed in the Plan to raise internal resources may not also accrue in the first two-year period. With the higher rate of outlay in this period on continuing schemes, the gap in resources will therefore tend to be large. To some extent, the proceeds of the Food Loan from the United States will help to meet the deficit, but even so there has to be a close watch on inflationary pressures. In view of these considerations, commencement of new schemes and the rate of expenditure in other spheres have been kept to the minimum in this period.

TARGETS IN THE AGRICULTURAL SECTOR

29. The first part of the Plan envisages additional irrigation of about 8 million acres from major irrigation works, representing an improvement of 20 per cent over the present level. Minor irrigation works consisting of restoration of tanks, construction of wells, repairs to nallahs, etc., will benefit another 7 million acres. In addition, 4 million acres will be restored to cultivation from fallows and 1½ million acres reclaimed by the Central Tractor Organisation. It

is hoped that the programme for agriculture, which is to be implemented through the machinery proposed later in this report, will make it possible to achieve the following increases:

	(Figures in 000's)
Foodgrains (tons)	7,200
Jute (400 lbs. bales)	2,060
Cotton (392 lbs. bales)	1,200
Oilseeds (tons)	375
Sugar (Gur tons)	690

30. These increases will help to reduce considerably the dependence on foreign sources. The increase in output envisaged in the Plan, together with three million tons of imports, will make it possible to raise the level of consumption to about 14·50 ounces per adult per day by 1955-56 after allowing for the increase in population.. The improvement in respect of raw materials is expected to be very much better. In the case of cotton, the demands of Indian mills for domestic varieties will be met in full, and it will be necessary to import only about 7 lakh bales of foreign varieties which cannot be grown in the country. As regards jute, the imports necessary for the normal working of the jute industry will be reduced from about 33 lakh bales to about 12 lakh bales; part of the reduced deficit may be met through higher production of mestas which can be used for producing the coarser varieties of jute textiles. In sugarcane and oilseeds, the increased output will make possible an expansion in the output of sugar and oils which can either be used for increasing domestic consumption or for export.

TARGETS IN THE INDUSTRIAL SECTOR

31. In the industrial sector of the economy, the emphasis for the short-term is on raising the output of existing industries to their installed capacities. With increased output of cotton, the cotton textile industry will be in a position to produce 4500 million yards of cloth and the handloom industry another 1900 million yards: this level of production will raise *per capita* consumption of cloth from about 13·4 yards in 1949-50 to about 15 yards in 1955-56 (the pre-war consumption averaged 15 to 16 yards) after allowing for exports of about 600-700 million yards. The sugar industry will also be able to work at full capacity, and thus help to raise *per capita* consumption of sugar from about 6·3 lbs in 1949-50 to about 8·3 lbs by 1955-56; the increased output of sugarcane will in fact be large enough to allow for a simultaneous expansion in the consumption of gur and khandsari from about 22·8 lbs to about

24·4 lbs. With the increased availability of raw jute, the output of the jute industry can be stepped up by about one-fourth over the present level.

32. In the case of large scale industries increases in production in respect of the following essential commodities are also expected to materialise:

	1950-51 (Actuals)	1955-56 (Targets)
Steel (000 tons)	10,05	13,15
Cement	26,13	46,00
Aluminium (00 tons)	36	2,00
Paper and Paper Board (000 tons)	1,09	1,65
Newsprint (000 tons)	...	24
Salt (000 tons)	26,22	30,75

33. The increase in the production of basic commodities like steel cement and aluminium will not substantially assist us in stepping up the rate of development in the period of this Plan; but these increases, together with the expansion of one million kilowatts in the output of power which will have been achieved by 1955-56 (representing an increase of about two-thirds over the present level), will strengthen the basis on which more rapid industrial development can be envisaged in subsequent years.

TRANSPORT AND COMMUNICATIONS

34. Under transport and communications, the largest outlay is on railways*. The plan for railways is primarily one for rehabilitation. The railways have a great leeway to make up. They emerged from the depression of the thirties with considerable arrears in maintenance and replacement expenditure. In the first phase of the War, they were called upon to release locomotives, wagons and track materials for the Middle East. Later, when the emphasis shifted to the Far East and India became an important base in the war with Japan, the transport system was strained almost to the breaking point. Moreover, railway workshops were diverted to the manufacture of ammunitions. With restricted imports of plant and

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*The outlay of Rs. 200 crores on railways in the first part of the Plan is additional to the estimated expenditure of the Rs. 150 crores to cover depreciation of assets in the period of the Plan.

machinery from abroad, and with internal facilities for rehabilitation appreciably reduced by the mobilisation and intensive utilisation of workshop equipment in the War effort, the arrears in maintenance and renewals accumulated still more. The Partition of the country placed further strain on the railways. In the last few years some progress has been made in overtaking the backlogs of maintenance and replacement, but the position is still far from satisfactory. The Plan does not therefore aim at a major expansion in the net-work of railways; the main purpose of the first part of the Plan is to make up for the arrears that have accumulated over the last decade and to rehabilitate the system. In the second part of the Plan, it will be possible to provide for some new schemes, especially those which bear on the development of mineral resources.

35. The outlay on roads is intended mainly to fill the gaps in the present system of National highways and for maintaining the present rate of development of State highways.

36. In shipping, the first part of the Plan envisages an increase in tonnage of 70 per cent over the present level. Provision is also made for improving the ship-yard at Vizagapatam which would go to strengthen the mercantile marine. Further expansion of shipping is provided for in the second part of the Plan.

37. State assistance for the development of civil aviation and expansion of telephone facilities (including manufacture of telephone equipment) are also significant features of the development contemplated in the sphere of transport and communications.

REHABILITATION OF DISPLACED PERSONS

38. It is hoped that, considering the present dimensions of the rehabilitation problem, the task of providing shelter and gainful employment to displaced persons can be substantially completed by the end of 1953-54. With the outlay of Rs. 67 crores in the last three and a half-years (excluding expenditure on relief), considerable progress has been made in the rehabilitation of displaced persons from West Pakistan, and the problems of displaced persons from East Pakistan have also been receiving urgent attention. In the next phase, for which there is a provision of Rs. 79 crores in the Plan, attention will be concentrated mainly on rehabilitation of persons displaced from East Pakistan and of those from West Pakistan still remaining to be settled in urban areas. The Plan treats rehabilitation as an integral part of development in the next few years.

HOUSING

39. The provision of Rs. 13·5 crores for housing by the Central Government is part of a scheme, outlined later in this report, for raising additional resources for construction of houses in industrial centres. The total outlay on housing in this period is thus estimated at over Rs. 50 crores, which would suffice for a construction programme of 1,25,000 houses for low-income groups in urban areas.

ASSESSMENT OF RESULTS

40. The implementation of the Plan will restore a certain measure of stability and balance to the economy. The shortages in supply of food and raw materials, which are now serious obstacles in the way of the smooth functioning of the system, will be considerably reduced. The country's balance of payments position will be strengthened. Improvement in this respect will help to liberalise trade relations with foreign countries and to supplement internal production with imports from abroad whenever necessary. If there is no serious deterioration in the terms of trade, this may enable the country to attain pre-war standards of consumption in regard to the basic essentials of life.

41. The standard of living of a community cannot of course be judged entirely in terms of food and clothing. With increasing incomes, there arises a continuous differentiation of wants which results in more diversified consumption. This may take the form of a more varied diet, better quality of clothing, and increase in ancillary requirements like bicycles, furniture, shoes, travel, radios, etc. Such diversification of consumption has been taking place in the last two or three decades. But its contribution to standards of living cannot at present be assessed in quantitative terms. It must be assumed that, with the larger incomes created by the outlay on development in the Plan, this process will continue and add in various ways to the welfare of the community.

42. More rapid progress in consumption standards in the near future would be possible only by reducing the outlay in the Plan on production of non-consumption goods and on long-term projects. But the planned increases in the output of steel, cement, aluminium and power—to mention only a few—and the rate of increase in irrigated area envisaged are themselves not over-ambitious, and are indeed vital to development in the succeeding stages. The Plan, therefore, represents an attempt to maintain a balance in the allocation of the limited resources available to the country as between the competing

demands of a quicker rise in standards of living in the short run and of steady progress over a longer period.

SOURCES OF FINANCE FOR THE PUBLIC AND PRIVATE SECTORS

43. The estimate of the resources available for the Five Year Plan of Rs. 1,793 crores, which relates only to development expenditure initiated in the public sector, has been made on the following assumptions:—

(a) the Central Government will try to maintain a surplus of Rs. 26 crores per annum in its revenue account, *i.e.*, at the level budgeted for 1951-52;

(b) additional resources of the order of Rs. 213 crores* will become available to the States over the five years through higher income from land estate duties, wider coverage and better administration of sales-tax, betterment levies and water rates, certain minor taxes on entertainment, motor vehicles etc., economies in expenditure, and through local loans for local projects which do not encroach on the normal sources of funds for the capital market;†

(c) long-term borrowing from the public will yield Rs. 115 crores to the Central and State Governments together during the period, and small savings and unfunded debt will contribute another Rs. 250 crores to the resources of the Centre;

(d) expenditure of a non-developmental nature (such as defence, administration etc.), will not rise significantly and economies will be effected in them wherever possible.

44. On these assumptions, the Central and State Governments together are likely to find resources of the order of Rs. 1,121 crores to finance the Plan. The details of this estimate are given in Appendix III. The estimates are based on the present allocation of resources as between the Central and State Governments; and while the total resources available to the public sector will remain unaffected, their distribution is likely to undergo some changes as a result of the recommendations of the Finance Commission.

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*Of this, it is estimated that about Rs. 132 crores will go to cover the deficit that would be incurred at the present levels of development expenditure of the State Governments on revenue account.

†The details of measures to be adopted for raising Rs. 40 crores of the Rs. 213 crores have yet to be examined in consultation with the State Governments.

45. This leaves a balance of Rs. 672 crores to be covered from other sources. The U.S. Food Loan recently extended to India, and the aid offered by Canada and Australia under the Colombo Plan, may provide a part of the finance required to fill the gap. It is reckoned that further foreign assistance will become available in the course of the five-year period. The implementation of the schemes in the second part of the Plan will have to be phased with due regard to the availability of foreign aid and in a manner that will not add to inflationary pressures in the economy.

46. As for large-scale industries in the private sector, the estimated outlay is about Rs. 250-300 crores. Of this, the schemes of expansion would require about Rs. 125 crores. The present rate of new capital issues is of the order of Rs. 15 crores per annum; a moderate improvement in this rate, together with assistance from the State of about Rs. 25 crores (for which provision has been made in the Five Year Plan) and from specialised institutions like the Industrial Finance Corporation, will help to cover this expenditure. For the arrears in replacements, which account for the remaining Rs. 125-175 crores, private industries will receive some relief from the refunds of the Excess Profits Tax (estimated at about Rs. 60 crores), a part of which can be used for this purpose. They can also draw upon their accumulated reserves to the extent that they are not locked up elsewhere. The rest of the finance required will have to be found through rationalisation and other measures for reducing costs, which will be assisted by the greater availability of domestic raw materials expected as a result of the Plan. In this connection, the scope for encouraging through fiscal and other measures the practice of ploughing back profits for replacement and other capital expenditure needs to be examined by the Government.

47. It will be seen from the above that the outlay required for the Five Year Plan in the public sector and for the plans of large-scale industries in the private sector would (after making allowance for the transfers to private industries provided for in the plans of the public sector) average to over Rs. 400 crores per annum. This is a relatively high rate of investment for an under-developed country whose national income is at present only about Rs. 9,000 crores and *per capita* income less than Rs. 300 per annum, but our broad judgment is that this order of investment is feasible.

48. For an adequate analysis of the implications of the rate of development envisaged over the next five years the necessary data are not available. The volume of current savings is itself a matter of speculation, and even less is known of their sources and uses. Such assessment as one makes of the rate of investment that can be

sustained in particular segments of the economy has therefore to be based on partial evidence in limited fields. Much also depends on the priority that is attached to the plans in the public and private sectors compared to the investments which are outside their purview. If there is a well-defined policy regarding the sources of finance to be developed for the purpose of implementing these plans, the necessary adjustments can be made in the light of experience without seriously affecting the basic assumptions on which the future development of the economy is set. Even in countries where more adequate data exist, forecasts of savings and of the channels to which they flow are liable to go wrong. There would, therefore, have to be periodical review of these trends as the implementation of the Plan proceeds.

49. As at present envisaged, a part of the development expenditure envisaged in the public and private sectors is likely to be met out of their current resources. The Central and State Governments normally set apart a portion of their revenues for certain community services; about Rs. 395 crores will be devoted in this way to the continuation and completion of schemes in hand and for expansion over the next five years.

50. With the decline in personal savings (which has been evident in almost all countries in the last few decades), public savings (*i.e.*, surpluses of governments on revenue account) and corporate savings (*i.e.*, undistributed profits of public and private corporations) will have to play an increasingly important role in sustaining a high level of investment and capital formation. The surpluses in the revenue accounts of Central and State Governments to be made available for capital expenditure in the five-year period have been placed at about Rs. 200 crores. We are of the view that surpluses of this order can be created and maintained without serious repercussions on investment elsewhere or on essential consumption.

51. With the diffusion of incomes over a wider sector than before as a result of higher agricultural prices, and with the decline in importance of some of the classes which formerly supported the capital market, more attention will also have to be given to small savings. These are expected to provide Rs. 250 crores, exclusive of local loans that may be raised for local projects. Local loans which affect the savings that would otherwise go to the organised capital markets have to be avoided, but there would still be scope for loans which would not encroach on the normal sources of funds for the capital market and which would tap sources that would otherwise remain untapped.

52. The organised capital market is itself expected to yield a little over Rs. 200 crores by way of subscriptions to public loans and to private issues. With moderate improvement over present conditions, this target is attainable.

53. The resources available for investment can also be supplemented to the extent that the country draws upon past savings held abroad. With an appropriate export-import policy, the withdrawals from India's sterling balances will contribute about Rs. 290 crores in the five-year period. In addition, as already mentioned, the Plan envisages foreign assistance. The scale of such assistance necessary will be between one and two per cent of India's national income.

54. The direct foreign exchange expenditure involved in implementing the Five Year Plan is not likely to exceed Rs. 300—350 crores. This would be well within the means of the country. The function of foreign aid will, therefore, be mainly to supplement the resources available for development by helping to provide the necessary rupee finance.

RELATION TO THE COLOMBO PLAN

55. The Five Year Plan outlined above represents in some ways an advance on the Colombo Plan published last year. The present Plan is based on a detailed examination of projects such as was not possible within the limited time available for the preparation of the Colombo Plan. As a result of this examination, some of the schemes figuring in the Colombo Plan have been excluded or modified and some new schemes expected to yield quick results have been introduced. A closer analysis of internal resources available at present for development, and the measures contemplated for augmenting them with a view to securing the maximum development possible through the country's own effort, have also led to an improvement in the estimates of these resources. Further, the Colombo Plan which involves an outlay of Rs. 1,840 crores over the period 1951-57 includes an item, namely, expenditure to cover the depreciation of railway assets in the period of the Plan, which the Five Year Plan does not include (but for which the necessary resources are separately provided for). Allowing for this item, and taking into account certain changes in cost estimates as a result either of price increases or of revision on other grounds, it will be seen that the Five Year Plan represents a larger measure of effort than it was possible to contemplate at the time the Colombo Plan was formulated. In consequence.

the targets of production especially in the field of agriculture visualised in the Five Year Plan are higher than those worked out for the Colombo Plan. It will also be noticed that, unlike the Colombo Plan, the Five Year Plan demarcates a part consisting mainly of projects under execution which, should foreign aid to the required extent be not forthcoming, will have to be implemented in any case. This will inevitably entail a greater measure of effort on the part of the community.

APPEN

FIRST PART OF THE

Cost of Development :

	Central Government		Part 'A' States	
	2 years total	5 years total	2 years total	5 years total
	1951-53	1951-56	1951-53	1951-56
I. *Agriculture and Rural Development*—				
Agriculture . . .	547·47	1203·84	4093·34	9083·09
Veterinary and Animal Husbandry including Dairying . . .	39·25	445·90	531·26	1534·52
Forests . . .	20·00	100·00	201·78	600·95
Cooperation . . .	...	...	228·33	520·51
Fisheries	11·00	54·00	107·16	333·02
Rural Development . .	...	...	288·43	674·42
TOTAL .	617·72	1803·74	5450·30	12746·51
II. *Irrigation and Power* . .	7788·00	17590·00	9142·86	19160·71
III. *Transport and Communications*				
Railways* . . .	8000·00	20000·00	...	...
Roads	800.00	2300·00	2198·52	5058·95
Road Transport . . .	...	...	444·40	562·40
Shipping	869·00	1586·00	...	...
Civil Aviation . . .	370·00	1587·00	...	..
Ports and Harbours . .	475·00	966·00	7·91	26·00
Inland Water Transport .	4·00	16·00	...	...
Posts & Telegraphs . .	1280·00	4000·00	...	...
Broadcasting . . .	90·00	352·00	...	...
Overseas Communications .	40·00	100·00	...	...
Meteorological Department .	30·00	62·00	...	...
Others	...	..	...	...
TOTAL .	11958·00	30969·00	2650·83	5647·35

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* The outlay on Railways shown here is additional to the estimated expenditure of

DIX I

NATIONAL PLAN

1951-52 to 1955-56

(Rupees Lakhs)

Part 'B' States		Part 'C' States		TOTAL	
2 years total	5 years total	2 years total	5 years total	2 years total	5 years total
1951-53	1951-56	1951-53	1951-56	1951-53	1951-56
1229·99	2842·98	208·25	564·62	6079·05	13694·53
77·73	200·41	28·63	67·96	676·87	2248·79
61·30	174·22	36·39	132·02	319·47	1007·19
47·26	146·63	21·35	52·80	296·94	719·94
16·46	43·12	2·62	8·48	137·24	438·62
115·52	385·88	...	...	403·95	1060·30
1548·26	3793·24	297·24	825·88	7913·52	19169·37
4293·59	7990·50	161·24	294·44	21385·69	45035·65
...	...	...	...	8000·00	20000·00
587·66	1477·62	199·00	528·79	3785·18	9365·36
39·00	96·00	3·00	10·00	486·40	668·40
...	...	...	...	869·00	1586·00
...	...	...	...	370·00	1587·00
32·30	63·02	9·91	20·00	525·12	1075·02
...	...	...	...	4·00	16·00
...	...	...	...	1280·00	4000·00
...	...	...	...	90·00	352·00
...	...	...	...	40·00	100·00
...	...	...	...	30·00	62·00
...	...	...	...	...	...
658·96	1636·64	211·91	558·79	15479·70	38811·78

Rs. 150 crores to cover the depreciation of assets in the period of the Plan

	Central Government.		Part 'A' States	
	2 years total	5 years total	2 years total	5 years total
	1951-53	1951-56	1951-53	1951-56
IV. *Industry*—				
Large-scale industries	2686·00	6470·00	779·33	1041·14
Cottage and small scale Industries	60·00	500·00	305·89	763·33
Scientific and Industrial Research	243·14	461·36	...	...
Mineral Development	27·90	106·19	...	...
TOTAL	3017·04	7537·55	1085·22	1804·47
V. *Social Services*—				
Education	1317·00	3200·00	2614·16	7386·92
Health	166·94	488·69	2592·58	6116·86
Housing	350·00	1350·00	545·13	795·73
Labour and Labour Welfare	142·00	385·00	99·71	263·05
Amelioration of backward classes	...	...	573·54	1462·72
TOTAL	1975·94	5423·69	6425·12	16025·28
VI. *Rehabilitation*	5400·00	7900·00	...	...
VII. *Miscellaneous*—				
Works and Buildings	400·00	1000·00	206·40	578·50
Finance Ministry Schemes	215·31	443·56	...	...
TOTAL	615·31	1443·56	206·40	578·50
VIII. *North East Frontier Agency*	83.50	300·00	...	...
IX. *Andamans*	33.59	155.75	...	...
X. *Aid to Kashmir for development*	100.00	276.40	...	...
GRAND TOTAL	31589.10	73399.69	24960.73	55962·82

(Rupees Lakhs).

DIX I—*Contd.*

Part 'B' States		Part 'C' States		TOTAL	
2 years total	5 years total	2 years total	5 years total	2 years total	5 years total
1951-53	1951-56	1951-53	1951-56	1951-53	1951-56
333·35	417·86	10·60	25·00	3809·28	7954·00
101·52	291·96	8·64	22·31	476·05	1577·60
...	...	...	...	243·14	461·36
...	...	...	...	27·90	106·19
434·87	709·82	19·24	47·31	4556·37	10099·15
396·29	1224·07	125·62	493·86	4453·07	12304·85
443·91	1222·55	169·67	531·71	3373·10	8359·81
32·74	78·02	20·50	57·00	948·37	2280·75
6·33	25·80	0·25	1·00	248·29	674·85
121·54	319·25	1·00	20·00	696·08	1801·97
1000·81	2869·69	317·04	1103·57	9718·91	25422·23
...	...	...	...	5400·00	7900·00
30·00	100·00	...	...	636·40	1678·50
...	...	...	...	215·31	443·56
30·00	100·00	...	...	851·71	2122·06
...	...	...	...	83·50	300·00
...	...	...	...	33·59	155·75
...	...	...	...	100·00	276·40
7966·49	17099·89	1006·67	2829·99	65522·99	149292·39

APPEN
FIRST PART OF THE
Plans of Part
Cost of Development :

Head	Assam	Bihar	Bombay	Madhya Pradesh
1	2	3	4	5
1. Agriculture	276·09	1284·33	1724·42	1043·63
2. Veterinary and Animal Husbandry. 3. Dairying and Milk Supply.	12·50	94·08	739·41	135·77
4. Forests	36·30	125·00	83·82	40·78
5. Co-operation . . .	29·25	39·00	146·49	34·43
6. Fisheries . . .	6·00	10·06	15·98	5·84
7. Rural Development . .	39·34	124·65	131·50	165·93
I. *Agriculture and rural development*	399·48	1677·12	2841·62	1426·38
II. *Major Irrigation and power projects*	145·00	1523·20	3312·00	927·00
1. Cottage Industries . .	12·50	59·20	103·28	4·90
2. Other Industries . .	12·50	60·00	253·89	226·23
III. *Industry*	25·00	119·20	357·17	231·13
1. Roads	213·00	800·00	1163·62	200·00
2. Road Transport . .	31·90	...	200·00	...
3. Ports and Harbours .	...	...	25·00	...
IV. *Transport*	244·90	800·00	1388·62	200·00
1. Education . . .	89·90	570·44	2142·51	1079·36
2. Medical . . . . 3. Public Health . . .	116·33	599·95	1616·94	346·08
4. Housing . . .	...	100·00	27·16	20·00
5. Labour and Labour Welfare	6·00	20·00	138·00	0·50
6. Amelioration of Backward Classes . .	223·66	160·00	213·57	136·44
V. *Social Services* . . .	435·89	1450·39	4138·18	1582·38
VI. *Miscellaneous* . . .	...	...	...	...
GRAND TOTAL	1250·27	5569·91	12037·59	4366·89

DIX II (1).
NATIONAL PLAN
'*A*' *States*
1951-52 to 1955-56

(Rupees Lakhs)

Madras	Orissa	Punjab	Uttar Pradesh	West Bengal	TOTAL
6	7	8	9	10	11
1600·00	205·51	183·89	2093·00	672·22	9083·09
150·00	61·96	21·83	192·35	126·62	1534·52
40·00	13·05	18·00	165·20	78·80	600·95
100·00	28·88	11·77	130·69	...	520·51
100·00	33·40	...	7·27	154·47	333·02
200·00	10·00	...	...	3·00	674·42
2190·00	352·80	235·49	2588·51	1035·11	12746·51
8041·00	407·00	333·00	2877·00	1595·51	19160·71
126·86	27·62	48·97	305·74	74·26	763·33
85·14	65·32	28·87	266·84	42·35	1041·14
212·00	92·94	77·84	572·58	116·61	1804·47
500·00	200·00	75·00	522·23	1385·10	5058·95
...	20·00	...	120·00	190·50	562·40
...	1·00	...	...	...	26·00
500·00	221·00	75·00	642·23	1575·60	5647·35
800·00	179·49	113·30	1603·78	808·14	7386·92
1200·00	125·06	124·00	473·63	1514·87	6116·86
300·00	...	11·25	113·95	223·37	795·73
...	1·86	1·75	94·94	...	263·05
459·00	116·35	...	145·42	8·28	1462·72
2759·00	422·76	250·30	2431·72	2554·66	16025·28
...	3·50	575·00	...	...	578·50
13702·00	1500·00	1546·63	9112·04	6877·49	55962·82

APPEN

FIRST PART OF THE

Plans of Part

Cost of Development :

Head	Hyderabad	Madhya Bharat	Mysore
1	2	3	4
1. Agriculture	346·41	650·00	442·48
2. Veterinary and Animal Husbandry	51·30	50·00	53·75
3. Dairying and Milk Supply			
4. Forests	21·43	50·00	8·30
5. Co-operation	35·31	25.00	7·10
6. Fisheries	8·56	5·00	2·20
7. Rural Development	...	60·00	81·05
I. *Agriculture and Rural Development*	463·01	840·00	594·88
II. *Major Irrigation and Power Projects*	2697·00	546·29	1984·00
1. Cottage Industries	25·72	50·00	135·38
2. Other Industries	268·71	55·00	34·80
III. *Industry*	294·43	105·00	170·18
1. Roads	128·57	189·00	320·05
2. Road Transport	...	...	...
3. Ports and Harbours	...	...	...
IV. *Transport*	128·57	189·00	320·05
1. Education	264·11	200·00	225·60
2. Medical	205·71	198·23	214·75
3. Public Health			
4. Housing	...	14·42	50·00
5. Labour and Labour Welfare	...	4·35	...
6. Amelioration of Backward Classes	...	80·00	100·00
V. *Social Services*	469·82	497·00	590·35
VI. *Miscellaneous*	...	100·00	...
GRAND TOTAL	4052·83	2277·29	3659·46

DIX II (2)

NATIONAL PLAN

'B' States

1951-52 to 1955-56 (Rupees Lakhs)

Pepsu	Rajasthan	Saurashtra	Travancore and Cochin	Total
5	6	7	8	9
354·03	109·24	395·72	545·10	2842·98
10·00	18·26	14·60	2·50	200·41
...	21·75	12·74	60·00	174·22
33·22	3·00	35·00	8·00	146·63
2·36	...	10·00	15·00	43·12
44·93	15·00	184·90	...	385·88
444·54	167·25	652·96	630·60	3793·24
64·59	494·30	740·82	1463·50	7990·50
2·36	38·50	15·00	25·00	291·96
30·00	...	13·55	15·80	417·86
32·36	38·50	28·55	40·80	709·82
100·00	290·00	300·00	150·00	1477·62
...	1·00	53·00	42·00	96·00
...	...	33·02	30·00	63·02
100·00	291·00	386·02	222·00	1636·64
89·90	263·50	160·96	20·00	1224·07
85·04	217·50	131·32	170·00	1222·55
2·00	2·00	9·60	...	78·02
2·00	5·00	14·45	...	25·80
10·00	42·20	27·05	60·00	319·25
188·94	530·20	343·38	250·00	2869·69
...	...	...	...	100·00
830·43	1521·25	2151·73	2606·90	17099·89

APPEN

FIRST PART OF THE

Plans of Part

Cost of Development :

Head	Ajmer	Bhopal	Bilaspur	Coorg
1	2	3	4	5
1. Agriculture	63·47	173·00	7·00	...
2. Veterinary and Animal Husbandry	11·11	7·00	1·00	1·00
3. Dairying and Milk Supply				
4. Forests	10·62	20·00	5·00	...
5. Co-operation	8·36	5·00	...	2·00
6. Fisheries	...	2·00	...	...
7. Rural Development	...	...	...	...
I. *Agriculture and rural Development*	93·56	207·00	13·00	3·00
II. *Major Irrigation and Power Projects*	...	5·00	...	25·00
1. Cottage Industries	...	5·00	0·50	...
2. Other Industries	...	...	...	...
III. *Industry*	...	5·00	0·50	...
1. Roads	9·67	40·00	20·00	10·00
2. Road Transport	...	...	...	...
3. Ports and Harbours	...	...	...	...
IV. *Transport*	9·67	40·00	20·00	10·00
1. Education	20·17	30·00	5·00	10·00
2. Medical	37·89	75·00	3·00	5·00
3. Public Health				
4. Housing	...	...	1·00	...
5. Labour and Labour Welfare	...	...	...	...
6. Amelioration of Backward Classes	...	5·00	...	...
V. *Social Services*	58·06	110·00	9·00	15·00
GRAND TOTAL	161·29	367·00	42·50	53·00

DIX II (3)

NATIONAL PLAN

'C' States

1951-52 to 1955-56 (Rupees Lakhs)

Delhi	Himachal Pradesh	Kutch	Manipur	Tripura	Vindhya Pradesh	Total
6	7	8	9	10	11	12
63·10	21·00	16·35	1·00	15·00	204·70	564·62
15·17	14·00	3·85	1·00	...	13·83	67·96
2·50	59·00	1·40	1·00	10·00	22·50	132·02
15·93	15·00	3·51	...	...	3·00	52·80
2·87	1·00	1·40	...	...	1·21	8·48
...	...	...	...	...	...	...
99·57	110·00	26·51	3·00	25·00	245·24	825·88
...	89·00	117·94	...	7·00	50·50	294·44
7·35	...	3·46	...	...	6·00	22·31
...	23·00	...	...	2·00	...	25·00
7·35	23·00	3·46	...	2·00	6·00	47·31
20·00	110·00	58·26	35·00	100·00	125·86	528·79
...	10·00	...	...	...	...	10·00
...	...	20·00	...	...	...	20·00
20·00	120·00	78·26	35·00	100·00	125·86	558·79
259·60	50·00	6·09	4·00	9·00	100·00	493·86
158·31	56·00	35·51	58·00	7·00	96·00	531·71
56·00	...	...	...	...	...	57·00
1·00	...	...	...	...	...	1·00
...	...	...	...	...	15·00	20·00
474·91	106·00	41·60	62·00	16·00	211·00	1103·57
601·83	448·00	267·77	100·00	150·00	638·60	2829·99

APPEN

INTERNAL RESOURCES AVAILABLE FOR

Centre (including Railways)		1951-56
1. Surplus on Revenue Account		130
2. Resources normally set apart in the Revenue Account for :		
(*a*) expansion of civil aviation, broadcasting, education, scientific research, medical and public health services, resettlement etc.	55	118
(*b*) grants to States for GMF and development expenditure	40	
(*c*) food bonuses to States	8	
(*d*) rehabilitation of displaced persons	15	
3. Resources available from Capital Account for development :		
(*a*) net long-term loans	35	363
(*b*) small savings and unfunded debt	250	
(*c*) repayment of loans by foreign governments, State Governments, and others	97	
(*d*) resources available for development from Railway funds	90	
(*e*) resources available through other funds and deposits	45	
(*f*) other miscellaneous receipts	63	
(*g*) less non-development expenditure on Capital Account	217	
4. Resources available for railway development out of the ordinary revenues of the railways		30
5. Total Resources available to the Centre for development expenditure and for assistance to States		641
6. Assistance to States assumed in the preparation of their Plans		211
7. *Resources available for the development expenditure of the Centre* (5—6)		430

DIX III

THE FIRST PART OF THE PLAN

(Rupees Crores)

	States	1951-56
8	Surplus on Revenue Account	81*
9	Resources normally set apart in the Revenue Account for schemes of expansion under social services, agriculture, irrigation, electricity, roads etc.	275
10	Resources available from Capital Account for development :	
	(*a*) Net long-term loans	79
	(*b*) Resources available through miscellaneous funds and deposits	45
11	Assistance from the Centre assumed in the preparation of the Plans of States	211
12	*Resources available for the development expenditure of the States*	631

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*The details of measures to be adopted for raising Rs. 40 crores of this amount have yet to be examined in consultation with the State Governments.

PART III

CHAPTER 1

FOOD POLICY

THE FOOD PROBLEM

THE food situation has been difficult throughout the past four years and early this year certain parts of the country seemed to be on the verge of famine. Unless the food problem is handled satisfactorily, economic conditions in the country will not be stable enough to permit the implementation of the Plan.

2. Although food controls were first organised as an emergency measure in the early years of the war, the country has now had experience of several forms and varieties of procurement and distribution arrangements. Over the greater part of the country food administration is fully, although not everywhere effectively, organised. In some States it has been subject to strains on account of insufficient supplies, but, on the whole, it has functioned fairly well, considering the magnitude of the task. What is needed most now is that the food problem in its present form should be clearly appreciated and that a clear direction of policy should be laid down and followed steadily over the next few years. Changes in policy should not be made in haste or under pressure until they are seen to be fully justified.

3. The food problem has existed for about two decades. The separation of Burma reduced internal supplies of foodgrains by 1·3 million tons, the Partition in 1947 by a further ·77 million tons. The lesson of the Bengal famine and, even more, of recent events, is that India's food problem is not a temporary disequilibrium between supply and demand; it is a manifestation of the continually growing pressure of population on food supply. It has, therefore, to be resolved, not through short-term expedients, but through careful and sustained application of relatively long-term measures.

4. The food problem may be seen in terms of five sets of factors, namely, the overall requirements to be met, the extent of rationing commitments undertaken by Government, the extent to which internal supplies can be procured, the magnitude of imports and the prospects of increasing internal production. Present and future policies have to be based on an assessment of the likely trends bearing on each of these factors.

1 lakh = 100000

OVER-ALL REQUIREMENTS

5. Defects in agricultural statistics introduce an element of uncertainty in estimating the overall deficit which has to be met. The existing gap between production and requirements and that which may come to exist in 1956 as population increases, if in the meantime production does not increase, may be seen from the following statement:

1. Estimated population (millions) . . .	1950 1956	357·4 383·1
2. Estimated adult equivalent population at 86% (millions)	1950 1956	307·4 329·5
3. Production of cereals in 1950 (lakh tons) .		455·2
4. Quantity of cereals available in 1950 for consumption if there are no imports and allowance is made for seed etc. at 12½ per cent. (lakh tons)	1950	398·3
5. Quantity available for consumption in 1950 including imports. (lakh tons) . . .		427·9
6. Availability per day per adult (ounces) in 1950		13·67

M

7. Requirements for consumption (including seed, etc.) in 1956.

	In lakh tons
On the basis of 13·67 oz. per adult per day	524·24
„ „ „ „ 14 oz. „ „ „ „	536·90
„ „ „ „ 15 oz. „ „ „ „	575·30
„ „ „ „ 16 oz. „ „ „ „	613·60

8. Deficit compared to production at the 1950 level.

	In lakh tons
On the basis of 13·67 oz. per adult per day	69·04
„ „ „ „ 14 oz. „ „ „ „	81·70
„ „ „ „ 15 oz. „ „ „ „	120·10
„ „ „ „ 16 oz. „ „ „ „	158·40

15·8 mln T.

To maintain consumption at the level of 1950, the additional quantity of foodgrains needed in 1956 will be 7 million tons; to raise consumption to 14, 15 and 16 ounces per adult per day, the additional quantity required is estimated to be 8·2, 12·0 and 15·8 million tons respectively. These figures indicate the magnitude of the problem that lies ahead.

6. The availability at present is by no means uniform between different parts of the country. If imports from abroad are excluded, availability per day per adult of the main cereals varied in 1950 from over 20 ounces in Madhya Pradesh or 17 in the Punjab to 12 in Bombay and Madras. The per capita availability is even lower in some States

15,800 000

but in these frequently other foodstuffs are to be had in addition to the principal cereals. In a country of the size and diversity of India, it is not possible to distribute internal supplies so that all persons throughout the country, whether they are producers or non-producers, whether they live in surplus or in deficit areas, receive the same quantity of food. The best that can be achieved is that each area should make available for distribution to deficit areas the maximum surplus it can secure after meeting the needs of its own population, both rationed and non-rationed. The Basic Plan for food distribution is worked on this principle. Both imports and procurement are important factors in maintaining the rationing system as may be seen from the following figures for the past four years. The figures for the first three years include gram also, but the margin of error on this account is small and does not affect the argument:—

(Thousand Tons)

Year	Opening stock	Procurement	Imports	Offtake	Closing stock
1947	1,132	4,211	2,369	7,067	645
1948	645	2,693	2,836	5,130	1,044
1949	1,044	4,610	3,619	7,690	1,581
1950*	1,581	4,634	2,165	7,634	746

*Provisional.

7. How each State procures the surplus production of its farmers, what rationing commitments it accepts and the extent of its surplus or deficit are matters vital to the functioning of the rationing system. The problem can only be met if each State approaches it from a national stand-point, contributing its best to the pool and drawing from it only such amounts as may be absolutely needed.

RATIONING AND PROCUREMENT

8. The equitable distribution of foodgrains among different sections of the population at reasonable prices has been an object of policy in recent years. The effective discharge of this responsibility is Government's first duty in the economic field. In determining food policy, therefore, there is no room for any proposal or experiment which detracts from this responsibility or exposes the economy to risk or uncertainty. The view is sometimes expressed that while

complete decontrol of food may not be possible, the essential objective of food policy can be secured if only the principal towns are rationed with the help of imported supplies and free movement established over the rest of the country so that supplies move readily to the non-rationed urban and rural areas. The basic assumption underlying this view is that free movement increases the supplies available in the market, whereas a system of controls reduces availabilities by encouraging a withholding of supplies at each stage mainly with a view to making larger profits in the black market. It is argued that even if free movement over the whole country—apart from the principal towns to be cordoned off—leads to a rise in prices, this would only be temporary, as supplies from low-price areas would act as a corrective to this trend. It is further pointed out by the advocates of this view that even under the present system as procurement is confined to only 10 per cent. of the internal production, a proportion of the remaining 90 per cent. is sold in the black market at rates much higher than the controlled rates. If foodgrains were allowed to move freely, the prices which would prevail, it is suggested, would be lower than the average of the controlled and black market prices which now prevail.

9. This view appears plausible at first sight. In a matter of such vital importance to the community, it is not possible to test fully through experiment the validity of this view. There are strong reasons, however, to believe that conditions at present are not favourable to the continued smooth functioning of a free market in foodgrains. So long as shortages continue, it would be possible for traders to buy up large supplies and charge exorbitant prices from the needy classes. The responsibility of Government is not limited to supplying the needs of the urban areas only. There are non-producers in rural areas who have an equal right to protection by the State. Even a temporary rise in foodgrains prices for these classes can, under present conditions, create a difficult situation. It is not possible to estimate with any degree of precision the volume of sales at present in the black market. This depends not merely on the system of controls adopted but on a variety of other factors which change from time to time. The restoration of a free market would tend to bring down black market prices but it is by no means certain that the consumers of foodgrains in this free market will, on the whole, spend less on foodgrains than before. Moreover, if past experience is any guide, it is clear that where the controls are efficiently managed, the prices in the rationed and non-rationed areas remain fairly close. On the other hand, in the case of States which gave up procurement and rationing in favour of free movement and distribution through trade channels, prices rose to levels higher

than in deficit States where the control system was comparatively more efficient. Any step in the direction of decontrol is under present conditions certain to raise prices and is likely to jeopardise the entire system of food control which has been built up in the country with considerable effort. The consequences of complete decontrol, it is hardly necessary to say, would be even more dangerous.

10. Apart from the high prices of foodgrains which could be imported from abroad, there are other difficulties in view of which it is desirable to depend on imported foodgrains only to the minimum extent necessary. Under a system of partial or complete decontrol, if expectations of increased availability that it raises are falsified and prices rise, no stocks would be left with Government to pour into the areas of high prices and shortages. Since internal procurement would already have been given up or greatly reduced, this would make the economy highly unstable and vulnerable. It is, therefore, necessary to continue internal procurement until the marketable surplus increases sufficiently either through increased production or through assured availability of imports.

11. It is not suggested, however, that Government's duty can only be fulfilled if there is complete uniformity throughout the country in the methods of procurement and in the extent of rationing commitments. While certain broad lines of policy must apply to surplus as well as deficit areas, in practice, a balance has to be struck between the extent to which foodgrains should be procured from the agricultural community and the extent to which the population should be rationed.

12. In rural areas a large proportion of the producers have hardly any surplus over their own needs. Agricultural labourers secure at the time of the harvest food for a part of the year, but for the rest they are dependent on purchases from the market. There are also the artisans and other workers who do not grow their own food. If the system of procurement draws away too great a share of the local production, without special arrangements for distribution in rural areas being made, and on account of shortage there is a steep rise in prices, these sections of the rural community suffer. On the other hand, if Government tries to work a system of rationing which covers the entire urban population and all or most of the non-producers in the rural areas, after a period, the strain both on the administration and the community may increase to the extent of making the system difficult to work. While there may be some room for variation in the States in the system of procurement and the extent of rationing

commitments. certain minimum conditions should be met by all. It is necessary. for instance, that all towns of a size to be prescribed by the Central Government should be rationed, so that the concentrated pressure on supplies which towns represent is fully isolated. In addition, in deficit areas, some formal or informal rationing of the rural population will frequently be needed. This may take the form of rural rationing or a system of fair-price shops, extensive enough to serve the countryside. It has to be emphasised that to ignore the problem or to avoid it for fear of heavy commitments may involve risks.

13. In some States, while the general policies relating to procurement are accepted in theory, implementation is weak and is in fact out of accord with all-India policy. The volume of procurement is influenced by several factors, such as, the system which is adopted, the food policy of Government, price trends for various agricultural commodities in the controlled and non-controlled sectors and price expectations of producers. Efficient systems of distribution and purchase and effective anti-smuggling measures are themselves vital factors in increasing procurement. In the present circumstances a system of monopoly procurement has to be regarded as essential throughout the country. In some States even at present, it is supported by a levy. There are others, however, in which the present procurement arrangements cannot be considered adequate. Given a suitable system of procurement and a determination to follow policies consistent with increased procurement, it should be possible to meet a larger proportion of the requirements from internal supplies. Adequate procurement, supplemented by necessary imports, and efficient arrangements for distribution of available supplies at reasonable prices are the essential corner-stones of food policy under present conditions.

PLANNING OF IMPORTS

14. Even if policy and administration in respect of rationing and procurement are satisfactory, in a normal year, internal supplies have to be supplemented by imports amounting to about 3 million tons a year. Without imports of this order, a ration of 12 ounces per adult per day, which should be regarded as the minimum for all except certain categories of manual workers, cannot be assured. When international conditions change rapidly, supplies may be affected by difficulties of shipping or availability, and prices abroad may be too high. It is, therefore, necessary to plan imports so as to ensure that during the next few years it is possible to reckon upon annual imports of about 3 million tons; in exceptional years, imports may have to be larger.

INCREASED PRODUCTION

15. While imports of foodgrains over the next few years have to be made as certain as possible through trade agreements and other arrangements, concerted measures to increase internal production are equally necessary. In the last analysis, the food problem can only be solved if enough food is produced in the country and if the marketable surplus is sufficient to meet the needs of the growing urban population. The programme for securing an additional production of foodgrains to the extent of 7·2 million tons by 1955-56 is explained elsewhere in this Report. Larger quantities may be expected to become available for the towns when production increases substantially. But, on account of the rate at which the urban population is increasing, and because of greater consumption in rural areas, there can be no certainty that even with increase in production the marketable surplus will be large enough to render imports unnecessary.

THE MARKETABLE SURPLUS

16. The problem of expanding the marketable surplus is, therefore, crucial to the future of food policy. The declaration made in 1949 that the country should be self-sufficient in food by the end of 1951 to the extent of requiring no further imports in a normal year assumed that additional production resulting from the intensification of Grow More Food programmes would go to feed the towns. This assumption was not correct. In the nature of things the first claims on any additional production that may result is that of the marginal producer himself or of the agricultural worker who may be able to buy a little more than before. This means that Government, even as a monopoly buyer, can obtain only a portion of the additional production. Moreover, the full effects of additional production could only be felt after a period. To secure a larger marketable surplus from the available production, two types of measures are necessary. In the first place, a much larger proportion of the produce of surplus farmers should come within the orbit of Government's direct procurement. The proposal to constitute all agricultural holdings above a prescribed size throughout the country into Registered Farms made later in this report is designed, amongst other things, to achieve this object. A programme such as that of the Malwa Development Board in Central India has the same purpose. In the second place, a programme for establishing licensed commercial and cooperative stores in rural areas for the sale of essential consumer goods at reasonable prices is called for. The details of the programme need to be worked out in cooperation with State Governments. The programme would, be justified as a measure for increasing the marketable surplus of

foodgrains. It would be equally important as an organised effort on a long-term basis to meet at reasonable prices the requirements of the rural population through cooperative and other agencies which can handle both controlled and non-controlled commodities. Owing to debt legislation and agrarian changes, in many parts of the country, rural shopkeepers and traders have tended to move to towns. This factor combined with the operation of controls and non-availability of consumer goods, has had a disturbing effect on supplies of consumer goods in rural areas.

PRICE POLICY

17. There is an intimate relation between price policy and food policy in its production, procurement as well as distribution aspects. The importance of maintaining a structure of relative prices if production programmes are to be fulfilled is discussed in the next chapter. The policy of subsidising the distribution of imported food has recently been modified, primarily on budgetary grounds. In the larger interest of the economy, we consider that, while the system of subsidies prevailing at any time may require modification, so far as possible imported foodgrains should, subject to budgetary considerations, be sold at prices which may not have a serious effect on the cost of living. So long as external prices are higher than internal prices, subsidies have an important place in the implementation of food policy.

RESERVE STOCKS

18. Proposals for maintaining a reserve of foodgrains to meet emergencies and to influence prices have been made from time to time. We suggest that a reserve of at least a million tons, as distinct from quantities required to maintain the rationing system, should be built up.

CHAPTER 2

PROGRAMME FOR AGRICULTURE

RECENT TRENDS

THE shortage of food and raw materials is at present the weakest point in the country's economy. Measures to increase agricultural production have, therefore, been assigned the central place in the Five Year Plan. As each year passes, the growth of population makes more difficult the task of producing enough to meet the country's needs. Deficiencies exist in cereal foods, as well as in other types of food, such as pulses, milk, meat and eggs, vegetables, fruits and fish. There are no reliable estimates of the deficiencies in respect of these products, but the gaps between production and requirements are very large. Production in two of the major industries of the country, cotton textiles and jute, has suffered from insufficient supplies of raw material.

2. The problem of increasing agricultural production has to be approached simultaneously from several directions. In the short run, the dependence of the farmer on rainfall and the extent to which he has at hand the means to increase his production outweigh all other factors. Over a period, however, sustained efforts to increase irrigation, to build up soil fertility, to improve the machinery through which the farmer is assisted and guided, and to bring about a better organisation of agriculture are the most powerful influences. These aspects of agricultural development are discussed in later chapters. Here it is proposed to set forth briefly the main features of the present agricultural situation, the limitations of agricultural planning, price policy for the agricultural programme, and the broad objectives which have been adopted for the Five Year Plan.

3. The principal features of the present agricultural situation which have a bearing on the programme to be adopted for the next five years are:

(1) There are deficiencies in several directions which require to be made up. In a normal year about 3 million tons of foodgrains have to be imported in order to maintain the rationing system, but larger imports may be needed if seasons are abnormal. In respect of those varieties of cotton which can be grown in the country the shortage amounts to 12 lakh bales. To enable the jute industry to

work on a reasonable scale without undue dependence on external sources of supply, internal production has to be raised by over 20 lakh bales. There are deficiencies also in sugarcane and oilseeds. In quantitative terms and in urgency these commodities come after cotton and jute.

(2) There appears to have been a noticeable increase in recent years in the area under fallows. Land utilization statistics of the post-war period and those relating to the period before the war are not strictly comparable in the case of a number of States, but it is estimated that the net increase in the area under fallows amounts to about 10 million acres. Part of this is, no doubt, accounted for by political conditions prevailing in Hyderabad, where the increase has been most marked, and in the States affected directly by Partition. Although in some States, decreases in the area under fallows may be observed, there are others in which the increase is difficult to explain. To what extent difficulties in securing labour and bullock power, adverse seasonal factors and the effects of legislation relating to land reform can account for increase in fallows is not certain. These and other factors, however, call for detailed enquiry, so that short-term factors may be isolated from long-term ones, and suitable measures may be devised. It will be useful if the general enquiries recently initiated are supplemented by intensive field-to-field investigations in small representative areas where land has gone out of cultivation.

(3) While the area under cereals during the three years ending 1949-50 compared to the period immediately preceding the war has not changed appreciably and had remained (taking comparable areas only) in the neighbourhood of 167 million acres, the production has declined from 46·16 million tons to 42·1 million tons. In terms of yield per acre, this suggests a decrease from 619 lbs. to 565 lbs. Of the total fall in production, jowar, maize and wheat account for nearly one-half. Three years is not a sufficiently long period to establish a trend, especially when the available statistical data may not always be dependable. The suggestion has been made that the reported fall in production may be ascribable in part to caution on the part of State Governments in reporting their surpluses and deficits from year to year for the purpose of

the Basic Plan for food. Sufficient evidence does not at present exist to this effect, but, it is important that surpluses and deficits should be reported by the States on the basis of objectives statistical verification. If it is found necessary to introduce any corrections, these should be shown and explained along with the original statistical data.

(4) On account of the loss of foreign markets and the need for increasing food production during the war, special measures were taken to reduce the area under cotton which fell from 21 million acres before the war to 10·6 million acres in 1947-48. The trend has since begun to be reversed and the area and production in 1950-51 were estimated to be over 13½ million acres and over 3 million bales respectively.

AGRICULTURAL PLANNING

4. The preparation and implementation of a programme for agriculture presents many difficulties. Even though commercial crops have an important place in the economy, agriculture is still predominantly a way of life. For millions of producers, each working on his own, it is the means for finding sustenance from harvest to harvest. In the ordinary course, it is difficult for agricultural officials to reach more than a small proportion of the farmers. Until agriculture becomes better organised, the necessary conditions for agricultural planning will not exist. Targets of production for individual crops, whether they are suggested for smaller or larger areas, are apt to be notional. But even as agriculture is organised today, if the levels of production to be reached in a State or in the country as a whole are determined on the basis of proposals built up from below, some of the error will be eliminated, and gradually the techniques of agricultural planning will improve. It will be one of the principal tasks of the machinery for rural development proposed in the following chapter to evolve, over a period, methods for presenting and implementing targets of production suited to the conditions of Indian agriculture. The broad objectives indicated in this chapter are in the nature of tentative first proposals worked out in consultation with the States Governments. These are no more than a starting point for the actual planning at different levels, from the village upwards, which has to be done in the States.

Grow More Food

5. The experience of Grow More Food Campaign and of the effort in the past two years to secure an increase simultaneously in the production of food, cotton and jute illustrates the limitations of agricultural planning in the present conditions. When the declaration of self-sufficiency in food was made in 1949, the assumption was that if, by the end of 1951, on the basis of production in 1947-48, allowing for increase in population, an additional production of 4·8 million tons of foodgrains was secured, the country would become self-sufficient and further imports would not be necessary. The gap of 4·8 million tons was thought of in relation to normal seasons and did not take account of the need for reserves for abnormal contingencies It was perhaps not sufficiently appreciated that the food problem was primarily linked with securing a sufficient marketable surplus from producers so as to meet Government's commitments for rationing, and that, when the bulk of the producers live on the margin, there is no fixed relation between increase in production and increase in the surplus which would become available. As proof of the fulfilment of the programme, increase in production was measured largely on the basis of "units of work", that is to say, if a well was sunk or repaired, an acre of new land reclaimed, or a ton of fertiliser employed, it was reckoned that certain defined additions to production took place. Statistical sample checks were undertaken to establish whether or not the 'yardsticks' which were adopted were correct. By and large, it was felt that the relationships assumed between the various types of effort in the results of each were valid. However, a complete or accurate assessment of the results of the Grow More Food campaign of recent years is not yet possible. It is clear, however, that Government's effort in the Grow More Food campaign has been widely dispersed and that frequently it has taken the form of rendering assistance to scattered individual farmers rather than of programmes conceived and operated in terms of specific areas in which intensive work affecting every farmer and every acre of land was undertaken. In the second place, while the extent to which additional production may take place as a result of units of work executed by local agricultural staff, a view must also be taken of counter-balancing factors such as diversion of land from food to non-food crops, and increase in the area under fallows due to factors like the landlord's desire to avoid adverse rights accruing to the tenant.

Price Incentives

6. During 1950 the Grow More Food campaign was widened into an integrated crop production programme. After devaluation, it was

felt that the need to grow cotton and jute in larger quantities had become so pressing from an overall economic point of view that measures of diversion of land from food to these crops and special incentives for their increased production would be justified. In 1950, and again this year, additional price incentives were offered for cotton, and jute was decontrolled early this year after the trade agreement with Pakistan. In oilseeds, the trade has remained free throughout the past few years. It is likely that when price incentives are offered, which favour certain crops at the expense of others, the farmer will respond and there will be additional production in the lines which are favoured. Such a policy is, however, not consistent with the expectation that production of different crops, some stimulated by the price incentive, others retarded, will reach defined levels of production. It will take some years before it becomes possible to undertake physical planning of the crop pattern in the sense of fixing areas or proportions of individual holdings to be placed under particular crops. Too great an emphasis on one crop or another may run counter to the exploitation of the natural and economic advantages open to the farmers of an area. In relying largely on price incentives to stimulate the production of particular agricultural commodities, there is a real risk that the structure of production may tend to be distorted. It is, therefore, basic to the success of the programme for agriculture during the next five years that great caution should be exercised in proposing different price incentives for different crops, and psychological factors calculated to produce short-term effects should not be unduly relied upon. The aim of policy should, therefore, be to maintain the relative prices of different agricultural commodities at such levels that, without being influenced by excessive price stimuli in one direction or another, it is possible to secure increase in food production to the desired levels *pari passu* with increase in the production of commercial crops.

7. The first part of the Five Year Plan provides for a total investment of Rs. 192 crores on the part of the Central and the State Governments on Agriculture and Rural Development, of which Rs. 137 crores are proposed to be spent on agriculture alone. The bulk of this investment is being made in the hope that it will lead to a substantial increase in food production. Under present circumstances commercial crops like cotton, jute, oilseeds or sugarcane do not need additional incentives in the same degree as food. It will not, by any means, be easy to balance through positive assistance to the farmer the natural impulse under existing conditions to grow commercial crops to the greatest extent possible. If, through its price policy, Government's own emphasis is also in the direction of certain commercial crops, added to other factors at work, the result may be that fertilizers, lands brought under irrigation, and a larger share of the

labour and attention of the farmer may be diverted towards commercial crops. The overall economic requirement of the country is that the dependence on imports for food should be gradually reduced. The Five Year Plan may, therefore, fail in one of its main aims if the agricultural price policy of Government is not informed by a clear sense of the goals to be achieved.

THE PROGRAMME

8. The broad objectives of the agricultural programme during the next five years are to secure an increase in the production of food by 7·2 million tons, of cotton by 1·2 million bales, of jute by 2·06 million bales, sugarcane in terms of *gur* by 6·9 lakh tons and of oilseeds by 3·75 lakh tons. These objectives have been proposed after consultation with the Ministry of Food and Agriculture and the Governments of all Part A and Part B States. It is hoped that as the Plan comes into operation in each State detailed programmes will be worked out and firm targets based on specific programmes proposed. The tentative distribution of the targets of additional production between different States is shown in the following table:

Additional Production Targets to be achieved by 1955-56

(Figures in thousands)

Name of State	Food (tons)	Jute (400 lbs. bales)	Cotton (392 lbs. bales)	Oilseeds (tons)	Sugar (Gur tons)
Assam	311	440	...	...	...
Bihar	879	390	...	8·5	50
Bombay	367	...	168	63·0	84
Madhya Pradesh	347	...	128	27·0	...
Madras	834	...	218	142·0	78
Orissa	295	200	...	...	...
Punjab	650	...	79	...	57
Uttar Pradesh	800	330	46	61·0	410
West Bengal	797	700	...	...	11
Hyderabad	633	...	88	49·0	...
Madhya Bharat	300	...	91	9·5	...
Mysore	159	...	75	...	...
PEPSU	249	...	56	...	...
Rajasthan	86	...	75	...	...
Saurashtra	94	...	159	15·0	...
Travancore-Cochin	141	...	...	...	...
Other States	260	...	17	...	...
Grand Total	7,202	2,060	1,200	375·0	690

9. Increase in the production of commercial crops may be expected in the ordinary course in view of the favourable factors which prevail at present and appear to be likely to continue. Increase in the production of foodgrains, on the other hand, will require positive measures of assistance to the farmer. The following statement indicates the different types of measures which are envisaged and the extent to which, on the first estimates which have been framed, additional production may be secured from each of them:

		Area ('000 acres)	Additional production. ('000 tons)
Major irrigation projects		8,712	2,272
Minor irrigation schemes		7,621	1,932
Land improvement and reclamation Schemes :			
Central Tractor Organisation	1,500		
Cultivation of fallow lands	4,000	7,405	1,524
Other land inprovement schemes	1,905		
Manure and fertiliser schemes		...	584
Seed distribution schemes		...	370
Other schemes		...	520
Total		...	7,202

These figures have been arrived at on a consideration of the probable additional production in each State from schemes proposed in its Plan. They are, however, subject to the important qualifications that administrative arrangements for the implementation of the programme will be made on an adequate scale and that the price policy to be followed will be consistent with the objectives of the programme.

Intensive Development Areas

10. For several years, in drawing up agricultural programmes the emphasis has been on achieving the maximum increase in production in the short period. The approach was probably justified, but it has to be recognised that the factors which account for low productivity in agriculture are in the main of a long-term character. Risks due to seasonal factors, the existence of uneconomic holdings, the absence

of an administration adequately equipped to mobilise the interest and energy of the agricultural community, the lack of equipment and finance, the low productivity of the agricultural worker and deterioration in soil fertility due to persistent neglect of land are problems calling for programmes of re-organisation and development which have to be pursued steadily and with determination over many years.

11. These programmes can succeed only if the cultivator is filled with enthusiasm and determination to achieve his best and the resources of the State are mobilised to enable him to succeed. In the past, in each State. resources of finance and personnel have been spread widely over different districts. The consequence is that the staff on the ground and the amount of assistance which can be rendered do not make a sufficient impression. It is essential that every State should draw up a programme of work for bringing certain areas, one after another. under intensive development, while holding the rest of the State more thinly. Since additional production is the most urgent objective, those areas should be selected where. on account of irrigation facilities or an assured rainfall. additional effort is likely to produce the most substantial results. In the selected areas the programme of agricultural development has to be part of a wider programme covering every aspect of rural development. Measures for social education and improvement in the health of the population are vital to the success of an agricultural programme designed to lift the rural community to higher levels of organisation and to arouse enthusiasm for new knowledge and new ways of life. In view of the limited finance and personnel which are available, such an approach can only be made in areas specially marked for development. As resources develop, it will be possible to take up areas which do not at present enjoy favourable conditions. Intensive development of an area presents problems of organisation, administration and public cooperation which call for new methods and techniques and a great deal of experiment. It is certain, however, that in no other way will it be possible to secure lasting and substantial results.

Assessment of Results

12. In the past, there has been a measure of uncertainty about the results which were being secured from Grow More Food. Important steps have already been taken at the Centre and in the States to carry out scientific, statistical tests at each harvest. Statistical checks need to be extended and for this purpose provision has been made in the Plan. It is important that the agricultural programme should be supported by an adequate machinery for the assessment of results and that the results should be published from time to time and without

undue delay. Moreover, finance sanctioned for a scheme or project in any year should be based on the assessment of results gained in the preceding year.

OTHER PROBLEMS

13. Financial investment by Government is only one aspect of an adequate programme for agriculture. The administration has to be capable of rendering effective assistance to the cultivator in securing supplies of seed and fertilisers and technical help when he needs it. The results of science and answers to the numerous problems which confront him have to be carried to the farmer. Production suffers today in a serious degree from lack of credit and finance and a great deal has to be done to reorganise and develop the cooperative credit movement before the necessary assistance, especially in long-term and medium-term credit, can be made available. There are also other directions in which effort is needed, for instance, in the better grading and marketing of agricultural produce, in increasingly utilising farmyard manure and oilcake, bonemeal, etc. and in organising efficiently methods of seed multiplication and distribution. Problems relating to mechanisation of agriculture, improvements in farm implements, manures, and agricultural research are also no less important. These and other problems mentioned above are at present under examination.

14. There is one question, however, to which we may refer here. It is natural that hitherto, in drawing up food production programmes, attention has been confined in the main to cereals. We consider that in increasing the total food supply and providing a balanced diet subsidiary foods such as potatoes, sweet potatoes, tapioca, etc., have also an important place. In the following chapter promotion of the cultivation of high yielding crops is referred to as one of the duties of the Village Production Councils. It is in the neighbourhood of towns that circumstances for expanding production of subsidiary foods are especially favourable. The question of distributing subsidiary foods in suitable forms as part of the food ration in urban areas has been considered recently but so far no definite action has been taken. There are certain obvious difficulties in utilising subsidiary foods as part of the ration and much preparatory work is necessary. It seems to us, however, that subsidiary foods can be a valuable supplement to the food supply of the country and should not be neglected. We suggest, therefore, that as an experimental measure, on a restricted scale and under appropriate conditions, subsidiary foods should be distributed as part of the food ration. Wherever the experiment is tried out, it will be necessary to make arrangements to develop the necessary production of subsidiary foods and to organise continuous supply.

CHAPTER 3

MACHINERY FOR RURAL DEVELOPMENT.

It is now generally recognised that the Grow More Food campaign suffered in efficiency by being spread over the whole area of the State. Work in intensive areas has many definite advantages. Limited resources produce better results when confined to a small area. Administrative efficiency can be best secured in intensive areas, as it becomes possible to make definite allocation of resources and allocate definite responsibilities. We, therefore, consider that while such items as minor irrigation works which are conditioned by physical factors and such general activities like compost-making, crop competitions, etc. could be pursued on an extensive scale, the future line of advance in the field of rural development lies in the intensive working of specific areas. Such working will provide valuable experience in raising the all-round level of rural life which later can form the basis of extensive work. The reorientation of the Extension Organisation in India recently effected by the Ministry of Agriculture is also conceived on these lines.

Existing Arrangements

2. Agricultural development is a part of the wider process of rural development. Beyond a point, it cannot be pursued in isolation and is indeed dependent on the growth of a progressive outlook in the rural community. There is also an intimate relation between agricultural development and rural administration. In parts of the country where, due to general backwardness, a satisfactory administration does not exist, agricultural development has been retarded. Even in those States where a sound system of district administration exists, there is need to adapt and reorganise the administrative machinery with the object that the maximum contribution may be made towards the raising of living standards.

3. Conditions differ in different parts of the country to an extraordinary extent. In the field of rural development in particular, the influence of local conditions and problems is so great that generalizations may be misleading. It is true, however, for the greater part of the country, where district administration and the various development departments have functioned without much change over many years, that the present machinery of rural development, both official and non-official, has proved inadequate. This

machinery has to be reorganised in several directions in order that it may meet the demands made upon it by the Five Year Plan. Its present defects may be briefly stated:

(1) Officials of development departments generally find that without the active assistance of the revenue administration, they are not able to secure satisfactory results in their work. It is, therefore, necessary that the machinery of district administration and that of development departments in the district should be sufficiently integrated to make a coordinated approach to the cultivator possible.

(2) Each department attempts to reach the cultivator through its own hierarchy. Invariably the last official in the chain of each department is a poorly paid subordinate, inadequately trained and incapable of providing much leadership or guidance to the farmer. At the same time, the areas within which he and his immediate superior official operate are generally so large and the means of assistance at their disposal so meagre that they seldom function effectively. Some of the best personnel of each development department tends to be drawn into administrative work at the headquarters, so that few among them are in contact with work in the field.

(3) There is considerable lack of coordination as between the various development departments at almost every stage—in the village, in the district and in the State as a whole. Activities which have a common objective and should be marked by unity of approach on the part of Government are split to an extent which affects the efficiency of all the departments.

(4) At the village level there is at present, as a rule, no organisation especially entrusted with the task of increasing agricultural production. In numerous villages *panchayats* exist, but their primary functions are judicial and administrative. There is also a large number of cooperative societies, mainly for credit and supply of controlled commodities. Cooperative Societies, like better farming societies which are specifically organised for increasing production, are few in number and serve only the needs of their members.

4. Some State Governments have recognised that without an effective field organisation which provides efficient service at points of contact between Government and the people, it will not be possible to implement major programmes of rural development. Valuable work has been done, for instance, in the Etawah project in Uttar Pradesh, through the Sarvodaya scheme in Bombay, in the Firka development programme in Madras and by the Indian Council of Agricultural Research. The Uttar Pradesh Government, in particular, have worked out ideas of administrative reorganisation which have significance for other parts of India. It is possible from the experience which has been gained to suggest the lines along which, in the light of their own conditions and problems, State Governments may endeavour to develop their organisation for rural development. The problem may be considered from five aspects, all of which are closely inter-related. The objects to be secured are:

(i) integration of field work on behalf of various development departments and coordination of development activity with the district administration;

(ii) setting up of an organisation in the village charged with the responsibility of increasing production;

(iii) utilisation of the cooperative movement as the effective channel through which Government's assistance in finance and supplies reaches the cultivator;

(iv) coordination at the higher levels of administration; and

(v) establishment of non-official agencies at each level acting in close cooperation with the official machinery.

5. The suggestions which follow are offered for consideration and examination; they are far from being in the nature of conclusions intended to apply in equal measure to all parts of the country. It is, however, felt that it is along the lines indicated here that prospects of building up an adequate machinery for rural development seem likely to be realised.

RURAL EXTENSION SERVICE

6. The primary object of building up a rural development machinery, or, to use a familiar expression, a rural extension service, is that intensive work should be possible. For intensive work which aims at reaching every farmer and at securing coordinated develop-

ment of rural life as a whole, it is necessary to determine upon certain primary territorial units. Experience suggests that subject to local conditions, intensive work can be best organised

(i) at the village level;
(ii) for a small group of villages, numbering about ten and having a population of about 5,000; and
(iii) for a larger block of 50 or 60 villages with a population of about 25,000 to 30,000.

In larger areas selected for intensive development it is convenient to organise work on the basis of the three primary units suggested above. It is at these three levels that the closest coordination between different development services has to be organised. It is possible that without arranging for any pooling of the field staff of different development departments, effective cooperation may sometimes be ensured. Even if this be so, the maintenance of separate extension organisations by different departments raises greatly the cost of rural development and presents difficult problems of manpower training. There is a strong case for the pooling of the field staffs of, say, the Agriculture, Cooperative and Animal Husbandry Departments for work falling between the village and the development block of 50 or 60 villages. Beyond the development block, there is need for greater specialisation in the work of the development departments. Valuable work in the direction of coordination between departments and the pooling of field staff has been initiated in Uttar Pradesh. If the central idea is found to be feasible, it can be adapted by each State according to its own conditions. The reorganisation has to be carried out in stages, because a new system should be introduced according as the field staff is trained in its new duties and practical experience is gained.

7. The block of 50 or 60 villages, which may be described as a Development Block, will be in the charge of an Extension Officer who will be the common agent for the Agriculture, Cooperative and Animal Husbandry Departments. He will have under him five or six officials, each in charge of these activities in his group of ten villages. He will be assisted by the person in charge of the Cooperative Supply Centre from which all supplies will be distributed in the Development Block. Above the Extension Officer each Department will have its own technical officers. At the district level, there should be a District Committee consisting of officers of the various development departments with the Collector as chairman. It is at the district level that programmes relating to agriculture, cooperation and animal husbandry will be coordinated with other aspects of rural development such as education and the

health services. This coordination has to be even more intimate in the Development Blocks, so that education, health and social welfare on the one hand and agriculture, cooperation and animal husbandry, on the other, are presented to the village as different aspects of a common and closely integrated programme.

8. It is necessary to emphasise the role of the Collector in the organisation. Results will depend on the extent to which he takes interest in and accepts responsibility for the programme. His function will be to utilise official machinery of the development departments to work out an intensive development programme for the Development Block. The targets agreed upon by the Village Production Councils and the different items of rural development work in the villages in the Block will be consolidated into a development plan for the whole Block. The association of the best public leadership at different levels with the formulation and execution of the plan will form an important part of his duties. In order to discharge these duties in most cases, it will be necessary to give him the assistance of a senior officer who may work as the District Development Officer.

VILLAGE PRODUCTION COUNCILS

9. The need for an organisation in the village for development production has already been mentioned. In every village or group of villages, there should be a Village Production Council. Where a village falls within the jurisdiction of a Panchayat, the Village Production Council may be a sub-committee of the Panchayat to which some of the office-bearers of the local multi-purpose or credit society may be co-opted as also two or three of the best farmers of the village. Where there is no Panchayat, the duties of the Village Production Council may be entrusted to some other body in the village, which may be the managing committee of a cooperative credit society or an *ad hoc* committee. On the Village Production Council, Government may confer powers, for instance, under legislation relating to the cultivation of fallow lands or to improved agricultural practices. The Village Production Council will be expected to

(i) frame programmes of production to be achieved at each harvest by the village;

(ii) frame budgets of requirements for supplies and finance needed for fulfilling the programmes;

(iii) assess results attained at each harvest;

(iv) act as the channel through which all Government assistance is provided to the village;

(v) take steps to bring under cultivation land at present lying uncultivated;
(vi) arrange for the cultivation of land not cultivated or managed by the owners;
(vii) assist in securing minimum standards of tillage to be observed in the village with a view to increasing production;
(viii) stimulate production through prize and other incentive schemes;
(ix) promote the cultivation of high yielding food crops;
(x) organise voluntary labour for community works;
(xi) estimate and assist in the provision of requirements of local raw materials for the artisans of the village; and
(xii) assist in the procurement and sale of surplus food grains.

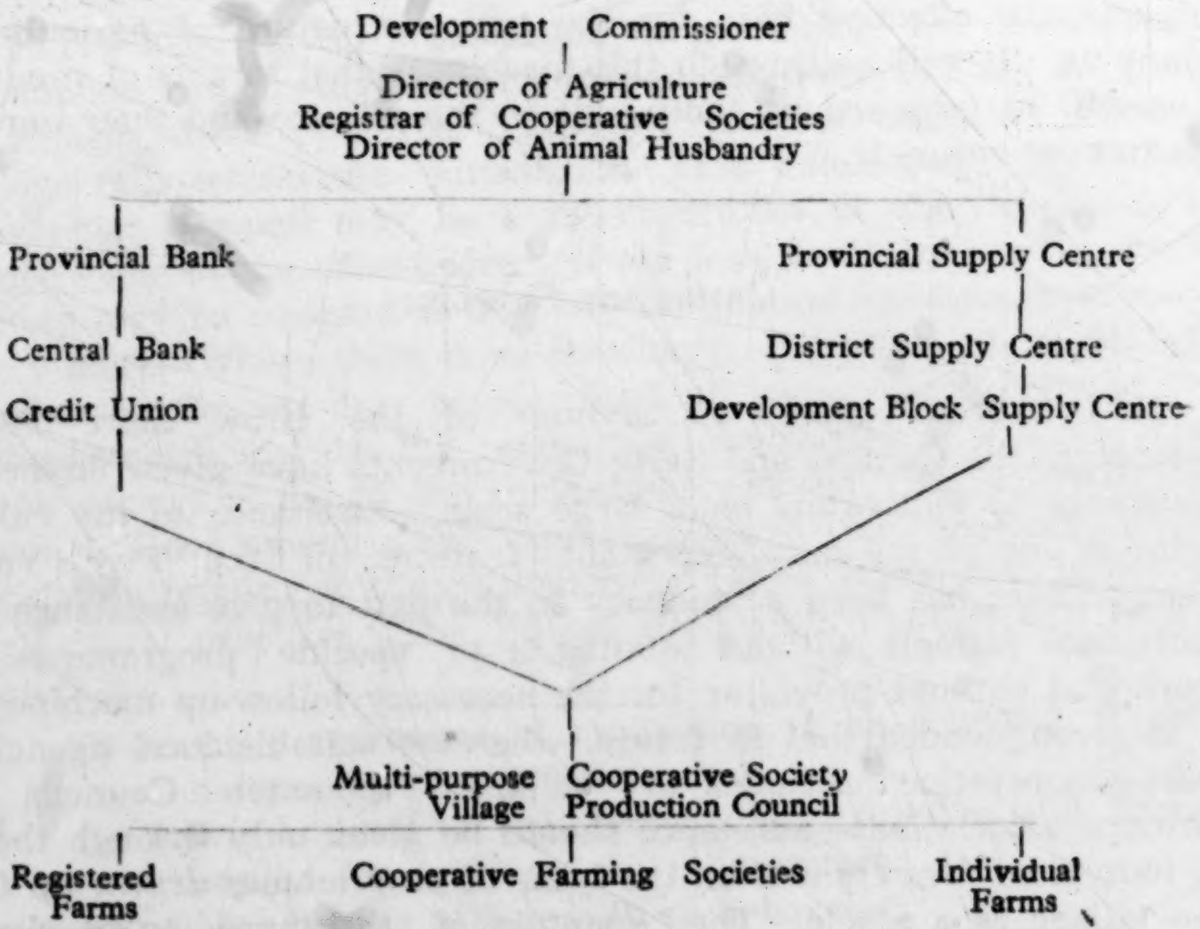
10. The Village Production Council will be a common body serving all classes of farmers within the village, whether they are cultivators working on their own separate fields, or members of cooperative farming societies or holders of registered farms. By drawing up production plans for the village on the basis of plans of individual farm units, the Village Production Council is expected to provide the effective base for the entire structure of agriculture planning. It will be through this machinery that targets of production will be proposed by the people in the villages and their implementation ensured.

CREDIT AND SUPPLIES

11. In recent years, on account of the Grow More Food campaign, the Central and State Governments have given financial assistance to cultivators on a large scale. Assistance to the cultivator is one of the most important features of the Five Year Plan. There has been a tendency in the past to give assistance to individual farmers without relating it to specific programmes of work and without providing for the necessary follow-up machinery. It is recommended that in future, wherever suitable local agencies exist—cooperative societies or Village Production Councils or farmers' associations—assistance should be given only through them to individual farmers and on the basis of programmes drawn up for the village as a whole. The quantum of assistance to be given should depend on programmes drawn up by the Village Production Council or any other organisation which may exist in the village. These programmes will comprise individual farmers, cooperative farming societies as well as Registered Farms within the village.

12. It is further necessary that financial assistance from Government should be given, not directly through Government officials, but through the machinery of the cooperative movement. Thus, we envisage two distinct processes to ensure that financial assistance reaches the cultivator on the basis of village programmes and without the intervention of lower officials, namely, channeling of funds to the village through the cooperative movement, and their distribution to individual farmers through the Village Production Council.

13. Where the necessary cooperative machinery does not exist, we suggest that cooperative multi-purpose societies for groups of ten villages may be established in areas earmarked for intensive development. Thus, one well-organised society may serve the purpose of several small and poorly organised societies. These societies will handle both credit and supplies. Where cooperative credit or multi-purpose societies already exist, if necessary, villages not at present served by them may be drawn into their orbit. To promote the efficient working of multi-purpose cooperative societies, it may be desirable to assist societies in a group of ten villages, if need be, to have a common secretary paid for by Government.


Development Commissioner
Director of Agriculture
Registrar of Cooperative Societies
Director of Animal Husbandry
Provincial Bank
Provincial Supply Centre
Central Bank
District Supply Centre
Credit Union
Development Block Supply Centre
Multi-purpose Cooperative Society
Village Production Council
Registered Farms
Cooperative Farming Societies
Individual Farms

14. In some States, the Provincial Cooperative Bank may be able to organise supply Centres at different levels. In others, it may be necessary to set up special agencies, not necessarily cooperatives, for

meeting the requirements of supply centres in Development Blocks and of multi-purpose cooperative societies. The form of organisation will depend in this field, as in others, on the actual conditions prevailing in a State.

DEVELOPMENT COMMISSIONER

15. The apex of the machinery of rural development will be the Development Commissioner for the State. This will be an office of the greatest importance because the success of the entire programme of rural development and agricultural production will depend on the type of person appointed as Development Commissioner and his competence as the leader of a team comprising heads of departments. The Development Commissioner may also act as Secretary of the State Rural Development Board consisting of heads of the various Development Departments and non-official representatives, with the Chief Minister of the State as Chairman. It will be the function of the Board to lay down policy and review from time to time the progress of development in different parts of the State.

ROLE OF NON-OFFICIAL ORGANISATIONS

16. It is important that at each level a substantial measure of responsibility for rural development should be shared by people's representatives. Corresponding to the Village Production Council serving the village, there should be in each group of ten villages a committee working in close cooperation with the official responsible for work in the village. Such a committee may contain *sarpanches* of Panchayats situated in the area, office-bearers of multi-purpose cooperative societies and other leading farmers. For the Development Block, the Extension Officer should have a similar non-official committee to which may also be added a representative of the supply centres serving the multi-purpose cooperative societies. At the district level, there should be a District Development Board in which, in addition to officers constituting the District Development Committee, there should be the Chairman of the District Board, representatives of the District Cooperative Bank, a representative of the District Supply Centres and leading non-officials from different Development Blocks.

17. Special efforts should be made to obtain the cooperation of experienced social workers. Experience has shown that extension work is greatly assisted if the cooperation of such non-officials is secured. If suitable social service organisations are able to supply workers who will act as secretaries of multi-purpose cooperative societies or supply centres, it will be desirable for Government to give them the opportunity of working out programmes in areas such as Development Blocks which may be assigned to them and to give them suitable financial assistance. Government may assist in this way in the growth of a tradition of social work and non-official leadership which may come to have a profound influence on future rural development.

18. There is considerable scope for utilising the voluntary labour of the people, especially in areas marked for intensive development. Most villages have some needs for the satisfaction of which they are prepared to put forth their contribution in labour and money. One village may require a school, a second a well, a third a link with a metalled road, and a fourth may require a tank. If an organisation could be set up which could provide the necessary leadership and technical knowledge, villagers could be persuaded to give free labour for works of common interest to the village. In intensive development areas, land utilisation surveys have to be conducted, village plantations raised, critical points of soil erosion located and soil conservation measures taken. The technical staff might consist of, for instance, an officer of the Forest Department and an officer of the Public Works Department. They should work in close liaison with the Extension Officer in the Development Block.

19. Reorganisation of the machinery of administration into a rural development machinery will take time. In the district, important duties will rest on the Collector who will have to coordinate the activities of all the Development Departments. The training of Extension Officers for Development Blocks of 50 to 60 villages and the village workers under them for groups of 10 villages will present problems of great magnitude. The courses at the existing training centres will have to be remodelled to suit the new conception of rural development. Officers of the Agriculture, Veterinary and Forest Departments, who will constitute the pool of staff from which Extension Officers may be drawn, will have to be given special training and refresher courses will also be necessary.

20. It will not be possible to provide enough trained personnel immediately for covering all the areas of the State. It is, therefore, suggested that the organisational changes proposed should be first made in the irrigated areas and in the areas of assured rainfall where early and proportionately greater results are likely to be achieved. The new system can be gradually extended to other areas. At the same time, at least one Development Block should be organised in each district so that the nucleus of future intensive development is created throughout the State.

CHAPTER 4

REORGANISATION OF AGRICULTURE

THE LAND PROBLEM

MANY of the weaknesses of Indian agriculture are inherent in the structure of the rural economy. These weaknesses have been greatly emphasised in recent years by the continuing shortage of food and raw materials and the increasing pressure of population. Comprehensive statistics indicating the proportion of agricultural producers who own and cultivate uneconomic holdings are not at present available. A number of studies, however, have been made in different parts of the country and it is evident that the dimensions in which the problem exists throughout the country are a cause for anxiety. A comprehensive inquiry in the undivided Punjab showed that about 81 per cent. of the holdings were below 10 acres and about 64 per cent. below 5. In Uttar Pradesh it appears from data collected for the *Zamindari* Abolition Committee that 81 per cent. of the holdings were below 5 acres and 94 per cent. below 10. Similar facts can be cited for other States. The bulk of the agricultural producers live on the margin and are unable to invest in the improvement of the land. There is widespread under-employment of the agricultural producer and the rural artisan and the economy cannot provide and sustain continuous employment for the available labour. The problems of Indian agriculture are far more fundamental than is commonly appreciated. This is apparent, for instance, from the fact that, in recent years, in spite of high prices, public investment on a scale never attempted before, and legislation designed to give greater security to the tiller, there have been no marked gains in production. The conditions of Indian agriculture are typical of a static, backward economy, which is unable to expand and keep pace with the growing population.

2. In its significance for the future, the land problem overshadows all other problems. In the measure in which a satisfactory answer can be found to this problem, the economy as a whole will advance. The central problem is to change the character of Indian agriculture from subsistence farming to economic farming and to bring about such changes in its organisation as will introduce a substantial measure of efficiency in farming operations and enable the low-income farmer to increase his return. Moreover, in the interest of society as a whole, the effort should be directed to bringing about its transformation in such a way as will help reconcile conflicting

interests within the agrarian economy, remove the disparities which now exist and provide a social and economic framework for the balanced growth of the village community.

LAND REFORM

3. In recent years important land reform legislation has been enacted in several States. Conditions of tenure vary a great deal in different parts of the country, so that the legislation is by no means uniform. The characteristics which are common to most of the legislation are:

(1) Abolition of intermediaries and, under certain conditions, conferment of rights of proprietorship upon occupancy tenants;

(2) Protection of tenants-at-will; and

(3) Determination of a ceiling on future acquisition of land by individuals.

4. In *zamindari* areas the removal of intermediaries is the first step to any effective land reform. Intermediaries have ceased to perform any vital economic function. In several States the fact that they collect rent for Government has come in the way of the establishment of an adequate revenue administration. The revenue machinery of Government is the mainstay of public administration. In the context of rural development, its functions and responsibilities are increasing. It is, therefore, desirable that even in those States in which the problems of compensation and administration have led to a measure of hesitation in promoting steps for the removal of intermediaries, the necessary legislation should be passed and implemented at an early date. In *jagirdari* areas the problems of providing a new administration are even more formidable. It will, however, be wise not to delay land reform even in these areas.

5. The example of the Bombay Tenancy and Agricultural Lands Act, 1948 in protecting tenants-at-will has been followed in some States, but much still remains to be done. Over a large part of the country tenants-at-will still do not have the minimum of necessary protection. There are strong social and economic grounds for undertaking measures of protection for tenants-at-will in *raiyatwari* areas and sub-tenants in *zamindari* areas. The following are the general principles which have been adopted in some States and need to be

applied in others with such local adaptations as may be necessary. It is not possible to be more specific as conditions vary widely from State to State:

(1) A person who has been cultivating for a prescribed period the same land or land belonging to the same landlord should be protected. He should not be liable to ejectment except under certain conditions such as non-payment of rent, negligence in cultivation, etc. Exceptions have to be made in favour of certain classes of owners such as minors, widows and persons employed in the defence services. Where tenants-at-will are given rights of protected tenants, the landlord should be allowed up to a fixed amount of land for personal cultivation. The limit for this purpose may correspond to the ceiling which may be proposed by law for the acquisition of additional land by an individual;

(2) There have been instances in which landlords have ejected long-established tenants with the object of guarding against the accrual to them of the rights of protected tenants. The legislation should provide for retrospective application after examination of claims in respect of such cases;

(3) The tenant should have the right to make improvements on land after giving notice to the landlord and compensation should be payable to the tenant for such improvements before termination of the lease;

(4) Leases should ordinarily be for a minimum period of five years. Rents should be prescribed by legislation. In several parts of the country as much as one-half of the produce goes to the landlord. Depending upon the contribution towards cultivation to be made by the landlord, ordinarily, a rent exceeding one-third of the value of the produce of unirrigated land and one-fourth in the case of irrigated land may be considered to be excessive. Proposals for a new structure of rents in a State have, of-course, to be based on a careful examination of the existing rents and the various factors which account for them;

(5) Provision should be made for the purchase of rights of ownership by protected tenants at prices to be determined, in the absence of mutual agreement, by revenue

courts invested with powers of Agricultural Land Tribunals;

(6) A ceiling on future acquisition of land has been prescribed in some States. In Bombay the limit has been fixed at 50 acres; in Uttar Pradesh at 30 acres. Although such ceilings do not affect existing properties in land, their long-term effect will be to prevent the formation of large holdings and to offer greater scope to the peasant owner and the tenant to acquire additional land.

AIMS OF REORGANISATION

6. The main aims in the reorganisation of agriculture are:

(i) to increase production and to make cultivation more profitable by reducing unit costs and increasing yields and, at the same time,

(ii) to reduce the number of workers engaged in the ordinary operations of farming.

In view of the present shortage of food and raw materials, agrarian policy has to be conceived so as to strike a balance between three different objectives, any one of which may at times be in conflict with the others. These are:

(1) maintenance and increase of total production;
(2) economic efficiency; and
(3) social justice.

It is possible to propose changes in the land system from the point of view of sectional interests, such as peasant owners, tenants-at-will and the landless labour. For the community as a whole it will be best if certain lines or patterns of reorganisation of agriculture are broadly accepted as the common National Programme towards the fulfilment of which the administration and the people bend their energies. Without causing loss of production which the community as a whole cannot afford, these approved patterns can evolve steadily in the direction of an increasing measure of social justice.

7. Uneconomic holdings are at the root of many of the difficulties of Indian agriculture. With the growing pressure on land, their number is increasing. Agriculture cannot be developed as an

efficient industry unless the unit of management becomes much larger than it is at present. It is true that where agriculture does not require much investment, natural conditions are favourable and the cultivators are skilful and industrious, small holdings may produce even higher yields per acre than large holdings. The problem in India, as in many other under-developed countries, is, however, a much larger one. The major factors for securing increase in production are the application on a wide scale of scientific knowledge and increased capital investment in its different forms. These factors can be employed only if agriculture is organised on the basis of relatively larger units of management and production than the existing holdings. Such larger units have undoubted advantages. In a farm of substantial size it is possible to eliminate several wasteful operations, and to ensure better planning of the use of land, including selection of crops, rotation and soil conservation, development of irrigation and introduction of improved agricultural techniques. Economies which are not available to small farms are available to large ones. By its very nature a larger unit of management can secure more credit and finance and can apply these to greater advantage, can diversify its economy and can make a relatively greater contribution to the solution of the country's food problem.

POSSIBLE LINES OF ACTION

8. A substantial increase in the size of the unit of management may be brought about in one of the following ways:

(1) by nationalising the land and making it available for collective cultivation;

(2) by placing a ceiling on existing holdings and utilising land in excess of the ceiling for increasing the size of uneconomic holdings or for distribution to the landless or for cooperative cultivation;

(3) by offering inducements to small farmers to become members of cooperative farming societies; and

(4) by taking the village as a whole as the unit of cooperative management in which, while meeting the claims of ownership through an ownership dividend, the entire area is treated as a single farm and is divided for convenience of cultivation into suitable blocks.

NATIONALISATION OF PEASANT RIGHTS

9. There are few in India who advocate the nationalisation of peasant rights as distinguished from nationalisation of rights of intermediaries or nationalisation of a portion of the land held by the larger landlord. Apart from the fact that any compensation payable would reach dimensions beyond the resources of the State, the real objections to nationalisation are deeper and more fundamental. Over the greater part of the country there has been for centuries a tradition of free peasant ownership. In the *zamindari* areas the peasant lost certain of his rights but gradually recovered them through legislation and through other measures, and the occupancy tenant came to occupy a position almost equivalent to that of a peasant owner in *raiyatwari* areas. Although the need for change was never greater, it is still true to say that peasants are the backbone of India's agriculture. They represent the main strength of the tradition of the village community and are the country's most efficient cultivators. Changes to be introduced in the rural economy should be capable of proving acceptable to them. A principle of change which is repugnant to the commonsense and sense of fairness of the peasant and which is inimical to his interest is not likely to bear fruit. On all practical considerations, therefore, nationalisation of peasant rights is not a course which can seriously be considered.

CEILING ON EXISTING HOLDINGS

10. The second course is sometimes advocated and its implications need to be analysed. The proposal to limit existing holdings raises important problems of finance, administration and management. Whether the State gives compensation, or under another name, rehabilitation grants, the task is likely to be far beyond its resources. The available administrative machinery is in no position to cope in any systematic manner with the problems of acquisition on the vast scale which appears to be contemplated. The distribution of the land acquired from individual owners among various classes of claimants—small owners, tenants and landless labourers—will present numerous practical problems involving basic social conflicts. Moreover, the land which is acquired will consist as a rule of fields scattered over the whole village and generally it will not be possible effectively to organise either collective farming or State management. On the larger farms production will fall and, for a period at any rate, on other farms also, and it may well be that the decline in production may have a serious effect on the well-being and stability of rural society as a whole. It is possible that any large-scale and sudden attempt to break up existing holdings may

give rise to such organised forces of disruption as may make it extremely difficult to bring about the very transformation in the organisation of agriculture which is needed. In the conditions of India, peaceful and democratic change is likely to be the most lasting. It is, therefore, necessary to ponder carefully over the practical results of a policy of ceilings on individual holdings. It will be seen on a dispassionate study of the subject that the main solution to the problems of Indian agriculture lies along the lines suggested in the third and the fourth of the alternatives mentioned above.

ULTIMATE OBJECTIVE: COOPERATIVE VILLAGE MANAGEMENT

11. The programme of reorganisation may be divided into two parts, namely, that which is to be followed over the next few years, and that which is to be realised as the eventual objective. The latter may be stated first. After examining the land problem carefully from different points of view, we suggest that it should be the broad aim of State Policy to establish a system of Cooperative Village Management. The following are the essential features of Cooperative Village Management:

(1) The unit of land management should ordinarily be the area of the village as a whole. For the purpose of management all the land of the village is to be regarded as a single farm;

(2) Rights of ownership are recognised and compensated for through an ownership dividend to be paid at each harvest. Ownership being provided for separately, cultivation of the land of the village is to be organised to the maximum advantage of the village community;

(3) Management of the land and the resources of the village should be organised so as to provide maximum employment. Owners of land who work in the village and workers who are non-owners will receive remuneration for work done according to the nature of the work. Owners will also receive an additional return on account of their ownership rights;

(4) The land may be cultivated by individual families or groups of families according as the needs of cultivation and other local circumstances suggest. For the purpose of cultivation appropriate blocks may be constituted and allotted by the village management body.

These blocks will be held from the village management body on such terms and conditions as will provide suitable incentives to those holding the blocks. The possibility of securing maximum production through the provision of individual or group incentives is thus fully preserved;

(5) The system of Cooperative Village Management may be introduced in any village when at least two-thirds of the owners or permanent tenants holding not less than one-half the cultivated area of the village express their preference in favour of its adoption. In such an event, the system would apply to the entire area of the village, including that held by the minority; and

(6) Enabling legislation for Cooperative Village Management should be enacted in each State. The legislation should provide for the village organisation necessary to work the system of Cooperative Village Management, the ownership dividend, the procedure for the introduction of cooperative management, etc.

12. Cooperative Village Management has a number of possible advantages. It provides, in the first place, a large enough unit for agricultural operations. In so far as it separates ownership from management, it makes it possible to use the land wholly in the interest of the community. Agricultural workers, who now work for individuals will, under Cooperative Management, work for the village community. Workers engaged in the same type of work, whether they are owners or non-owners, will receive remuneration on the same principle, so that the landless labourer's position in society will begin to change. Although ownership dividend will be determined in accordance with general legislation, as reorganisation proceeds, its magnitude is also likely to change. With the strengthening of the social incentive and the responsibility of the community for developing its resources and providing work for all its members, internal savings will develop. Under Cooperative Management fewer hands will be needed for cultivation than at present. This very factor imposes an obligation and an urge to introduce other forms of work in and around the village *pari passu* or even somewhat ahead of changes in the organisation of agriculture.

13. There are three main major objections which may be raised against a system of Cooperative Village Management. They apply in fact to any system of cooperative or collective farming—

(i) Rationalisation of agriculture will throw such a large section of the rural community out of work as will cause widespread hardship;

(ii) A system in which individual holdings are pooled is opposed to the instinct and tradition of the Indian peasant and will not be acceptable to him; and

(iii) Sufficient cohesion and managerial capacity to work out the proposed pattern has not so far been developed.

14. Co-operative Village Management is presented as the objective of reorganisation and, as will be explained below, there are important intermediate stages before this goal is reached. A great deal of experiment is needed before the new system can be introduced on any scale. Moreover, the pace at which Co-operative Village Management should be developed, will depend upon the pace at which, simultaneously, it is possible to absorb workers released from the village. There will be difficult problems of organisation and adjustment, but, in an expanding economy, most of these should be capable of solution.

15. The second and third objections have much force and deserve careful consideration. Once the main lines of the future patterns of agriculture are clearly envisaged, a process of persuasion and education is necessary in order to convince the bulk of agriculturists about the value, from their own point of view, of moving towards Co-operative Village Management. Through practical demonstration and through active financial and technical assistance, it should be possible to bring home to the rural community the advantages of Co-operative Village Management. Many peasant farmers are already beginning to perceive that as agriculture is at present organised, substantial improvement in their economic condition is not possible. In a democratic framework, while legislation can emphasize the social interest, change and progress can proceed only at the rate at which the minds of men are genuinely influenced. If the lines on which the long-term problems of Indian agriculture should be tackled are broadly agreed upon, it is possible, within the frame-work of a living democracy, to achieve the changes which are called for and to plan the immediate steps so as to promote the ultimate objective.

PROGRAMME FOR IMMEDIATE ACTION

16. While Cooperative Village Management is presented as the ultimate objective, the immediate programme for increasing agricultural production on which, it is suggested, the machinery of rural development described earlier should concentrate consists of three main proposals:

(i) Establishment of Village Production Councils;

(ii) Establishment of Registered Farms; and

(iii) Promotion of Cooperative Farming Societies.

The functions of the proposed Village Production Councils have already been indicated.

REGISTERED FARMS

17. Registered Farms and Cooperative Farming Societies are proposed as the most suitable methods, at present available, of increasing the size of the unit of land management in agriculture and organising as large a sector as possible as an efficient industry. It is proposed that—

(i) holdings above a level to be prescribed should be organised as Registered Farms; and

(ii) holdings below the prescribed level should be brought together increasingly into small cooperative farms.

The size to be prescribed for Registered Farms will depend upon the character of each area, its crop pattern and the character of cultivation. *Under existing techniques,* for the bulk of the land under cultivation, about six times the economic holding may often be found to be a unit of management offering the largest economies. In many areas this may be a convenient minimum size for Registered Farms, but local variations are to be expected. It is suggested that legislation should be enacted by States in accordance with which owners of Registered Farms will be under obligation to—

(1) follow approved scientific methods of agriculture and develop their farms as efficient units of production;

(2) agree to sell improved seed to Government;

(3) sell surplus foodgrains to Government; and

(4) ensure such wages and terms of employment for agricultural workers as may be determined.

Good husbandry and management of land are a social obligation. Surplus farmers, especially those whose holdings are proposed to be constituted into Registered Farms, are in a position to discharge this obligation and, what is no less important, to set a standard of cultivation which will help to raise the general level of agriculture. To enable them to do so, technical advice, supplies, etc. will be made available to them.

Cooperative Farming Societies

18. Registered Farms will, however, only touch a small section of the rural community. It is important, both for the education of the bulk of the owners and for increasing the yields from land under cultivation, that individual holders of land should be encouraged and assisted to group themselves voluntarily into Cooperative Farming Societies. These Societies may be formed on conditions such as the following:

(1) The area under a Cooperative Farming Society should not be less than the minimum prescribed for Registered Farms in any tract; no maximum need be prescribed;

(2) Preference should be given by Government to such societies in the matter of supplies, finance, technical assistance and marketing;

(3) In undertaking consolidation proceedings, preference should be given to those villages where such societies have been formed. Wherever holdings belonging to members of cooperative societies can be consolidated, without consolidating the village as a whole, this should be effected preferentially, so as to provide each Cooperative Farming Society with compact blocks of land;

(4) Preference should be given to Cooperative Farming Societies in leasing culturable waste land belonging to Government or taken over under the law from private owners, with a view to development. Suitable assistance in bringing such land under cultivation should also be given by Government; and

(5) It should be provided that so long as a Cooperative Farming Society continues, no adverse tenancy rights will accrue against those of its members who may not be engaged in personal cultivation. The object of this condition is both to encourage the formation of Cooperative Farming Societies and to assist them in reducing the number of workers required for cultivation of any given area.

CONSOLIDATION OF HOLDINGS

19. During the past twenty or twenty-five years considerable experience in the consolidation of holdings has been gained in the States. It may be said that the cultivator now knows the value of consolidation and, over the greater part of the country, needs no persuasion for adopting it, although the detailed processes of consolidation certainly need to be simplified. Consolidation of holdings is useful under all circumstances, but proves most valuable where, in consequence of it, the cultivator is able to increase the productivity of the land, for instance, by sinking a well.

20. It is recognised that consolidation of holdings, while making a distinct contribution to increase in production, does not eliminate the essential weaknesses of uneconomic holdings and does not offer a lasting solution of the land problem. In some States attempts have been made to prevent subdivision of holdings by prescribing a standard area, below which subdivision is forbidden either by way of partition, sale or lease. Such measures have a limited value but, in our view, the eventual solution has to be in the direction of proposals such as have been set out in this chapter. Until it becomes possible to organise a system of Cooperative Village Management on a sufficiently large scale, it will be desirable to intensify programmes for consolidation of holdings and to give special attention to villages in which there is greater readiness to form Cooperative Farming Societies.

THE PEASANT

21. Within a village the Production Council will be a common body for Registered Farms, for farmers organised in Cooperative Farming Societies as well as for farmers working on their own. Its task will be to help each class of farmer to contribute its best to the total production of the village. Through the Village Production

Council. it should become possible to organise a system of agricultural planning which helps to link each peasant and worker with the production goals prescribed in the National Plan.

22. In the last analysis, it is the peasant, the man behind the plough, on whom hopes of increasing production have to be based. The changes in organisation which have been proposed by us are designed to assist and strengthen him, not to supplant him. The Plan will succeed in the measure in which Government's machinery is able to reach the individual peasant in the home and on the farm, to extend a helping hand to him and to evoke from him co-operation and enthusiasm in building his own and the nation's prosperity.

THE AGRICULTURAL WORKER

23. Agricultural workers constitute about a third of the rural population. In the past insufficient attention has been given to their social and economic well-being. The tenancy and other legislation enacted in recent years does not to any significant extent bear upon their problems. A very large proportion of agricultural workers belong to the scheduled castes and, in a real sense, the main economic problem of this section of the population can only be solved if the land system provides increasing opportunity to the agricultural worker. The growing pressure of population causes greater hardship to agricultural labourers than to any other group in rural society. The great majority among them continue to eke out a bare existence. With agriculture organised as at present, the under-employment of agricultural workers and the lack of continuous work are chronic and these workers are the first victims of any undue rise in prices or of shortage of food in rural areas. The Agricultural Labour Enquiry which has been in progress for the past two years has produced a wealth of information about the condition of the agricultural labourer which should help in the formulation of appropriate policy.

24. It is not always realised that the existence of a large body of workers who have little to lose and live in indefensible social and economic conditions is itself a strong justification for effecting, as early as may be possible, radical changes in the structure of the rural economy. For, it is because agriculture as an industry is inefficient and cannot offer continuous work even to the agricultural producer that under the present conditions the scope for improving the condition of the agricultural worker is extremely small. It is to be expected that with the growth of Cooperative Village Management, as the responsibility of the village community towards

all its members is translated into practical action, the relative status of the agricultural worker will improve and fuller employment, whether as a farm worker or otherwise, will become available. In the meantime, steps in four directions are recommended:

(1) The Minimum Wages Act which was passed in 1948 has to be enforced in the first instance in those areas in which the level of rural wages is found to be relatively low on account of the presence of certain exploitative factors. State Governments should take early steps to determine such low-wage pockets in their territories and should fix suitable minimum wages, care being taken to provide also the requisite administrative machinery;

(2) Minimum wages should also be prescribed for workers engaged on farms above a certain size. This may be broadly the size fixed for Registered Farms. On these farms, since agriculture will be organised on a commercial basis, it should be possible out of the proceeds to pay a reasonable wage to the worker. It may be expected that without making it necessary for a State Government to enforce minimum wages throughout its territory, the level of wages determined for Registered Farms will influence wages in the surrounding areas. This selective approach may achieve in large part the purpose of universal enforcement of minimum agricultural wages throughout a State. Such universal enforcement by itself represents an administrative task which is at present beyond the capacity of the machinery at the disposal of Government and may tend to reduce the volume of rural employment to the immediate detriment of the agricultural worker;

(3) In the settlement of all newly reclaimed land, after allowing for such areas as may be required for State farms, preference should be given to cooperatives consisting of landless workers;

(4) A progressive social welfare policy designed to improve the living conditions and social status of the agricultural labourer should be followed, in particular, in matters such as allotment of residential sites in villages, supply of drinking water, etc. Beneficial legislation such as that relating to debt concilation which at present applies only to persons holding land should also be made applicable, under suitable conditions to agricultural

workers. Restrictions which, still fetter the agricultural labourer in many parts of the country should be removed, wherever necessary, by legislation. Further, through stipends and larger opportunities for vocational education and training, it should be the State's endeavour to produce among agricultural labourers the type of leadership and the level of understanding of the needs of the village community as a whole without which reorganisation of the rural economy on lines described in this chapter may meet serious difficulty.

CHAPTER 5

ANIMAL HUSBANDRY

India has to support today about 177·4 million heads of cattle which is nearly one-fourth of the world's total bovine population. Except in a few favourable localities where there are special facilities of good pasture land enabling cattle breeding to be developed as an independent industry, the rearing of cattle is an industry subservient to agriculture. Maintenance costs are considerably reduced as cattle are generally fed on fodder which is a by-product in the raising of food crops. Throughout the country agriculture and animal husbandry are thus complementary to each other.

2. The problems of cattle development in India can be considered under the following four heads:—

- **(i) Feeding,**
- **(ii) Breeding,**
- **(iii) Removal of useless cattle; and**
- **(iv) Protection against diseases.**

3. *Feeding.*—Lack of adequate feeding is the most important cause of the poor condition of cattle. It is a common experience to see how cattle in India immediately respond to better feeding and care. The cultivator bestows priority in feeding and maintenance upon his plough and milch animals. The rest of the cattle are maintained from a variety of considerations, *e.g.,* little cost, future progeny, manure, but much care is not taken of them.

4. It is estimated that the total supply of roughage can maintain only 78 per cent. of the cattle population and the supply of concentrates is very much smaller. The problem of better feeding can be tackled mainly by providing better feed to a smaller number of animals. Better feed can be produced by popularisation of mixed farming which, in some cases, will involve some diversion of the area under foodgrains to fodder crops. This reduction in the area will, however, be more than counter-balanced by greater yield due to better fed bullocks working more efficiently and increased supplies of milk and milk products. Another method in the same direction

is to seed existing pastures with better yielding and more nutrient species of grasses. In all intensive cultivation-zones stress should be laid on these aspects of agricultural practice.

5. *Breeding.*—Cattle breeds are generally classified as milch, draught and dual purpose breeds. From the point of view of the cultivator the dual purpose animal is the most useful. India has well defined local breeds, and State Governments have cattle breeding farms for some of these breeds. Under the present breeding policy different areas have been designated for the purpose of development of particular breeds. Where the local breed lacks specifically either in milch or draught qualities, the deficiency is made up by crossing it with another suitable breed. Most of the cattle population of the country is, however, of a non-descript type and the objective is to upgrade them with pedigree bulls of the particular breed indicated for that locality.

6. The most common method for upgrading is to provide a sufficiently large number of pedigree bulls which would cover all the cows in the locality while all the local scrub bulls are castrated. One of the difficulties in adopting this method on any large scale is that at present about 750 good pedigree bulls are produced every year in various cattle breeding farms as against our estimated requirements of about one million. This deficiency can be met in the following two ways:—

(1) By the introduction of the key village scheme. Under this scheme, while pedigree bulls are issued to a group of villages, the selected progeny of these bulls is specially reared on State breeding farms and issued again as stud bulls. This is the quickest method of multiplying our supply of pedigree bulls. Over Rs. 3 crores have been provided for expenditure on the key village scheme in the Central Government's plan.

(2) Establishment of artificial insemination centres with a view to increasing the coverage of pedigree bulls. While an ordinary bull can cover about 60 to 80 cows by natural mating, by artificial insemination about 500 cows can be served. Investigations and trials conducted under Indian conditions have proved that artificial insemination centres are quite successful and the initial prejudice of the cultivator is soon overcome. There is undoubtedly a promising future for such centres in India. Schemes for increasing their number have been included in the State plans.

7. *Removal of useless cattle.*—This is by far the most important and most difficult problem of cattle development. It is estimated that at least ten per cent. of the total population consists of unserviceable and uproductive cattle (*vide* Report of the Cattle Preservation and Development Committee, Government of India). It is somewhat difficult to gauge the effect of Article 48 in Part IV of the Constitution on this problem. In so far as it is interpreted as preventing slaughter of decrepit and useless cows it may be said to have aggravated it. Another result of such a provision is the adverse effect it might have on the manufacture of glandular products like insulin, adrenalin and liver extract. On the other hand, by preventing the slaughter of calves and milch and draught cattle which formed a considerable portion of the animals slaughtered for beef and particular varieties of hides, the Constitution has taken a positive step in furthering the development of cattle in India. The figures of cattle population for the past two decades in undivided India indicate that unrestricted liberty to slaughter which prevailed in the past had no appreciable effect on the total cattle population of the country. This indicates that the size of the problem is not materially affected by the provision in the Constitution prohibiting the slaughter of cows. As the normal slaughter of cattle does not make any significant impression on the problem and the wholesale slaughter of useless animals is not a practical proposition, some other remedy has to be thought out to meet the situation. One such remedy is the opening of large camps in areas where the fodder supply to-day is unutilised. The old and useless cattle are transferred to these camps through the *Pinjrapoles* and thus pressure on existing fodder supply is reduced. Suitable arrangements can be made at these camps for the utilisation of the manure of these cattle and, their hides, etc., after their natural death.

This method has not yet been tried on any scale but, as we can see no alternative solution, we recommend its trial. It should not, however, be adopted on any large scale unless experimental projects have established its claim. A sum of Rs. 1 crore has been provided in the Plan for this purpose.

8. The problem of dry cows in cities is also important from the point of view of preservation of good cattle. It is observed that good milch cows are brought to the bigger cities like Bombay, Calcutta and Madras and when they get dry they are sent to slaughter houses. Establishment of dry cattle salvage farms and the gradual removal of the existing cattle population of these cities to the surrounding rural areas are important measure for preservation of cattle. The

programmes of some States provide for a start in this direction during the period of the Plan.

9. *Protection against diseases.*—India has made considerable progress in this direction in the past few years. Rinderpest claims the largest mortality of cattle. An inexpensive serum (lapinized vaccine) has now been evolved against it and preventive inoculation on a large scale with this serum can effectively eradicate the disease, and work in this direction has to be expanded.

Another disease which causes very considerable loss of working hours and of milk yield is the foot-and-mouth disease. No preventive measure against the onset of this disease has yet been developed.

10. The lines of future cattle development lie in concentrating on activities described above, to begin with, in selected areas where they can be introduced along with other items of agricultural and rural development. Preventive action against cattle diseases has of course to be organised on the widest possible scale.

CHAPTER 6

RURAL COTTAGE INDUSTRIES

COTTAGE industries have a central place in rural development programmes. In view of the large population, labour-intensive methods of production have to be adopted, wherever they are technically feasible. In rural areas, the problem of under-employment exists almost everywhere and has tended to grow. The agriculturist, who has intermittent employment during the year, as well as his family, need supplementary occupations. Products of modern industry have increasingly limited the market for the rural artisan whose occupation now gives him only partial employment. If agriculture is to be rationalised, means for absorbing surplus workers amounting, over the whole country, perhaps to a third of the population have to be found. There is, thus, in rural areas, a vast human and economic problem to be resolved. Problems of cottage industries have, therefore, an urgency and importance in the immediate future which cannot be over-emphasised. They call for action-programmes which will develop a great deal of local initiative and will provide the economic frame-work within which cottage industries will have a fair prospect of success. It is important in this context to undertake measures commensurate with the size of the problem.

2. Cottage industries are in the main rural in character. Their leading characteristic is that work is carried on in the home, either as a whole-time or as a part-time occupation, and, frequently, with the help of members of the family. In the past the village was in substantial degree a self-sufficient unit which provided for most of its needs. The village weaver, oil presser, leather worker, potter, carpenter and blacksmith represent this tradition. The demand for their products was always of a local character and there were no competing suppliers. This situation has now changed and, steadily over the past few decades, the village artisan has lost ground to the merchant and the manufacturer. With growth of individualism in the village, the ties that bound the peasant to the village artisan have greatly diminished. On the side of demand for his products, therefore, the position of the rural artisan (with the exception of the blacksmith and the carpenter) has deteriorated.

3. The artisan's ability as a producer is also much less than it was. His methods of production have remained static while, due to new products being available in the village, the consumer's tastes have changed. Products which are not good enough to meet the requirements of a local and to some extent a sheltered market can scarcely have any demand outside the village. Secondly, the artisan is not able to get his raw materials. Where the raw materials come from outside, for instance, iron or yarn, being unorganised, he is greatly handicapped. Where the materials are obtained locally, such as oilseeds, he has to meet the competition of the trader buying for the oil-mill. Also, he lacks finance and is frequently under debt. These difficulties tend to drive the artisan out of his craft, turn him into a whole-time or part-time labourer and increase the pressure on the soil.

4. If rural cottage industries are to be developed, it is necessary to deal with those deficiencies which have led to their decline. These are the lack of (1) organisation, (2) preferential local demand, (3) reasonably efficient methods of cottage or small-scale production, (4) raw materials and (5) finance. A programme for rural cottage industries has to aim, primarily, at assisting the artisan to remove these deficiencies, and at additional measures, such as, appropriate stores purchase policies.

5. Before we proceed to consider each of these aspects, it is necessary to indicate the important role the State will have to play in encouraging production from cottage industries. Having been committed to a programme to increase agricultural production which cannot be realised without a certain amount of rationalisation, it follows that for the fulfilment of this programme it will be necessary to create additional avenues of employment in the rural areas for absorbing surplus workers. The increase in production from cottage industries on a scale commensurate with this objective must, therefore, become as much a matter of policy with the State as increased agricultural production. It is, therefore, necessary to have programmes of production from cottage industries which will provide scope for increased production as rationalisation of agriculture proceeds. In the initial stages till cottage production is well-established, it may be necessary to some extent to subsidise the sale of cottage industry products. Without the acceptance of such an obligation, no large-scale programme of increased production appears to be possible. Each aspect of the problem may now be briefly considered.

6. (1) *Organisation.*—The rural artisan is ordinarily a worker on his own, working unaided from any source. Here and there, the village weaver working for a middleman in the town may be an exception. An industrial cooperative may be composed of artisans following a particular craft or of artisans following different crafts in which the fact that the members are all artisans may be the bond of membership rather than their pursuit of particular crafts. If the first alternative is followed, there are advantages of common interest in matters such as the adoption of better methods of production, marketing facilities, supply of raw materials and finance. If the second alternative is followed, the area for constituting an industrial cooperative may be smaller and organising personnel may in practice be more effectively employed. Sufficient experience of the working of single-craft and multi-craft cooperatives does not exist at present and, depending on local conditions, the more promising method can be adopted. What is important is to realise that the problem of the rural artisan pursuing a whole-time vocation has to be tackled mainly through the establishment of industrial cooperatives. There are many institutions in India which have been working in the field of cottage industries for a long time. They have considerable experience of production through cottage industries. In addition to organising industrial cooperatives, a useful method of developing cottage production is to give these institutions assistance in the matter of finance, organisation, marketing, etc., so that they, in turn, can assist artisans through their workers.

(2) *Preferential local demand.*—Unless the rural community shows a distinct and sustained preference for the products of local artisans, cottage industries will decline further and the other measures which may be proposed will not avail. In the present state of agriculture, the demand for goods is severely restricted. As the village is at present organised, there is no impelling motive to support village industries and, through them, to maintain a given level of employment in the village. In some form or other, it is important that the village community should accept the obligation of seeing that, within the limits of action open to it, the maximum employment is afforded to all its members, whether they are farmers or artisans or labourers. It may be possible to achieve this object to some extent through existing village multi-purpose societies of which artisans may also be members. Among the functions of Village Production Councils mentioned earlier, the obligation to ensure the supply of locally available raw materials to village artisans has been included. A preferential local market can be created by setting barriers to imports from other areas, but such a measure has other consequences which have to be considered carefully. At the same time, if the price of the local product is

much higher and its quality much poorer than the rival product a villager can buy, the necessary conditions for developing steady village demand for local products will not exist. It follows, therefore, that only if certain other conditions are fulfilled can the factor of local demand play any considerable part in a programme for the development of cottage industries.

(3) *Reasonably efficient methods of production.*—Developing efficient methods of production involves organisation, equipment, training and finance, and is thus a process which takes time. Provided the indications are that, after a period, in any cottage industry there is a fair prospect of efficient methods being established, as a temporary measure, a large measure of support by the State, even at the expense of the general consumer, may be justified. This aspect is referred to later. The training of artisans, research in methods of production and the supply of equipment are essential to the implementation of a programme for the development of any cottage industry. These aspects are linked closely with the establishment of industrial cooperatives because, without an adequate organisation at the base, it is difficult to undertake other measures.

(4) *Raw Materials.*—For different reasons, almost every category of rural artisan suffers for lack of raw materials—the weaver and the blacksmith who are dependent on the products manufactured by large scale industry whose distribution is at present controlled; the oil-presser, because he has not the means to buy sufficient quantities ahead of his needs; and the leather worker, because conditions of supply of hides and skins have recently deteriorated. Government should be prepared to accept the responsibility of organising the supply of raw materials within its control to the artisan, provided the latter can receive assistance either through the village multi-purpose cooperative society or through the industrial cooperative of which he is a member or through centre organised under suitable official or non-official auspices. Given, in particular, industrial cooperatives, it should be possible to provide for the purchase of raw materials in sufficient quantities to maintain production. In the last resort, supplies of raw materials can be requisitioned in order to maintain the production of organised cottage industries. Without the necessary organisation, Government is not in a position to discharge any responsibility directly for the supply of raw materials.

(5) *Finance.*—Cottage industries are at present starved of finance and, so long as they continue to be unorganised, neither Government nor cooperative credit societies can assist them. If,

however, programmes of assistance for industrial cooperatives are drawn up, it will be open to cooperative banks to provide short-term finance and for Government, through legislation relating to State aid to industries, to assist in the provision of medium and long-term finance, especially for adopting better tools and methods of production.

7. It has become necessary for Government to assume in relation to cottage and small-scale industries obligations somewhat similar to those it has already assumed in relation to the development of agriculture. This implies that Government will:

(1) provide an agency charged with the duty of organising rural artisans in industrial cooperatives,

(2) arrange for research into methods of production and use of local raw materials,

(3) provide medium-term and long-term finance, and

(4) assist in procurement of raw materials whose distribution is within its control.

Some action has been taken by the Government, at any rate, in the larger States in each of these directions, although, in the absence of systematic programmes, the results attained cannot be said to be satisfactory. It may be said that training facilities for cottage industry workers, research into methods of production and the financial assistance available for cottage industries are at present everywhere inadequate. Valuable work has been done in several States such as Bombay, Madras, Uttar Pradesh and Bihar and, on the basis of their experience, suitable organisations can be developed by all States. Three questions of policy and administration which have to be considered relate to:

(1) composition of the State organisation for developing rural cottage industries;

(2) machinery for organising industrial cooperatives; and

(3) organisation for research into equipment, methods of production and the utilisation of local raw materials.

8. A State Government may organise cottage industries departmentally or by setting up a special statutory corporation (as proposed by the Fiscal Commission) or through a Development Board

which may be presided over by a Minister and may comprise, besides the officials concerned, leading non-officials interested in the development of cottage industries. Examples of the first and the third type of organisation exist, but the idea of a single statutory corporation for the development of cottage industries in a State has still to be tried. The choice between a departmental organisation and an organisation of a semi-public character which includes both officials and non-officials turns primarily on the role which may be assigned to non-official organisations and workers in the development of cottage industries. There is room for different opinions on this question but, taking a long-term view, we consider that the maximum results are likely to be gained if the main emphasis is placed on the strengthening of Government's administrative machinery for organising and assisting industrial cooperatives in co-operation with village organisations and non-official agencies interested in the growth of cottage industries. Non-official organisations can, in particular, play a most valuable part in the actual running of industrial cooperatives and in advisory and other organisations where problems of cottage industries are considered and policies formulated. As in the development of agriculture, if suitable non-official organisations with a record of work in the field of cottage industries agree to take charge of the running of industrial cooperatives in any area, Government may offer them a field of work and a measure of financial assistance. Such organisations can also train new workers and bring to bear that quality of service without which industrial cooperatives may not succeed. It is to be remembered that rural artisans are not at present in a position to supply the element of leadership and managerial ability which is needed for the successful working of industrial cooperatives.

9. It is in the organisation of research into tools at present employed, methods of production and utilisation of raw materials that the action of Government has been most deficient. Research in respect of cottage industries has, however, to be organised along with research into small-scale industries, to which reference is made later, for, as cottage industries develop more efficient methods of production and as power becomes available, the distinction between them and small-scale industries tends to disappear.

10. It has been stated already that given the necessary organisation on the side of the artisan, there is justification for the maximum assistance possible on the part of Government, even if this implies a certain sacrifice of the interest of the general consumer. Such assistance may sometimes take the form of a cess on the corresponding large-scale industry. Priority should be given in the first place to measures for establishing industrial cooperatives,

increasing the efficiency of the artisan and securing with the help of the village community a more assured local market for his products. Secondly, if Government can find from public revenues the finance required for undertaking these measures, resort to a cess would not be necessary. In the third place, before a proposal for a cess, which may have consequences extending beyond the immediate object in view is accepted, other methods of assistance such as the maximum financial aid which is possible, supply and, if necessary, requisitioning of raw materials, should first be taken. It will probably be found that the various measures of positive assistance which have been suggested will effectively alter the competitive position of the rural artisan. In the last resort if, in the interest of the economy as a whole, a cess for effecting some kind of equality between the artisan and the large-scale manufacturer appears to be necessary, it may be levied, the details being determined on the advice of a body like the Tariff Board.

11. The cottage industries which appear to offer scope for organising intensive development programmes are: khadi, manufacture of *palm gur* and *gur,* the village oil industry, production of neem oil, utilization of dead cattle, manufacture of hand-made paper, manufacture of woollen blankets, and, in certain areas, hand-pounding of rice and manufacture of matches. We have examined the economic aspects of these industries in some detail and expect to make detailed proposals for their development in a subsequent report. We take the view that programmes for rural cottage industries cannot be drawn up in isolation from programmes relating to the corresponding large-scale industries. To the extent to which cottage production is secured through industrial cooperatives or through organised centres of production, it becomes possible for Government to accept direct responsibility for their promotion and development. To the same extent also, it becomes possible to frame common production programmes for cottage industries and for large-scale industries. Adequate arrangements can then be made to assist cottage industries in the allocation of raw materials, in purchasing stores for Government and in the provision of finance. The technique of drawing up production programmes for industries which are in the private sector is still in its infancy. We reckon, however, that in the present circumstances of industries and with the powers which Government possesses, it will be feasible to prepare a programme of development in common, for instance, for the oil mill industry and the village oil industry. It should even be possible to envisage as part of such a programme, so fundamental a change as the allocation of the production of edible oils largely to the village industry, while leaving the field for non-edible oils to the oil mills. This is cited as an illustration

to show that if cottage industries are developed on a sound basis (which holds promise of progressive efficiency), in order to ensure the maximum rural employment, fundamental changes in the conditions of production of cottage industries and large-scale industries can, if necessary, be organised over a period through the medium of common production programmes. These may include, for instance, licensing of industrial units and, in certain cases, a policy of non-expansion of existing capacity, with the object of achieving the targets set for cottage, small-scale and large-scale industries in the common production programmes which may be drawn up.

STATE PATRONAGE

12. The stores purchase policy of Government can be very effectively utilised for developing cottage industries. We recommend that it should be an object of policy to encourage so far as possible by State purchase the production and utilisation of cottage industry products. Some State Governments have already taken effective steps in this direction. In this connection considerations of cost and quality are of course relevant. In the case of cottage industry products 'utility' should be regarded as an important criterion for decision. This may apply over a large range of products, of which woollen blankets and hand-made paper may be cited as instances. Specifications should be reviewed so that they afford a fair chance to cottage industry products which are capable of satisfying essential requirements. The question of the price margin which may be given under particular conditions in favour of cottage industry products should be examined.

13. As a part of the common production programme, we have in view a special programme for Khadi. Such a programme could provide a great deal of subsidiary employment and at a time of shortage, will add to the available cloth supplies, besides utilising stocks of short staple cotton.

14. Cottage industries are a responsibility, in the first instance, of State Governments. They become a responsibility of the Central Government in virtue of action needed in the field of policy and, in particular, in framing common production programmes. Government will have to see that the common production programmes afford increasing scope for employment in the rural areas. In the field of research the Central Government should assume an overall

responsibility. For implementing the various programmes it will be necessary for the Central Government to equip itself with an organisation capable of handling various questions of policy, assisting in drawing up production programmes with sufficient knowledge of the economic conditions and problems of cottage industries and of assisting the coordinated development of research throughout the country. The precise pattern of the organisation which may be needed has to be worked out. In regard to research, while the Central Government may consider the possibility of establishing an institution under its own control, in the main, it should render financial assistance to institutions distributed in different parts of the country which will be in touch with regional problems and will be in the best position to encourage local inventiveness.

CHAPTER 7

IRRIGATION AND POWER

INDIA has ample water resources. A preliminary estimate of the water yields of various catchments and of the waters at present utilized for irrigation has shown that only about 6 per cent. of the water that flows annually through the rivers of India is being utilized. Though conditions vary from region to region and from river to river, there is no doubt that there are large possibilities for the development of the country's water resources, in view especially of improvements that have taken place in the technique of construction of high dams. In addition to irrigation, such projects of development offer possibilities for generation of power and also, in some cases, for flood-control and navigation.

2. The irrigated area in undivided India was 72 million acres out of a total cultivated area of 298 million acres or 24 per cent. After Partition, the proportion of irrigated to cultivated area in the Indian Union has fallen to 19 per cent.—48 million acres of irrigated area out of a total cultivated area of 251 million acres. The reduction in the proportion of irrigated area has injuriously affected the food position in India. Irrigation has been practised in India for centuries and the demand for its extension in all parts of the country is insistent.

3. During the last few years there has been considerable activity all over India in connection with new irrigation and power projects. Many new schemes, large and small, have been taken up for construction—some purely for irrigation, some only for hydro-electric power and others multi-purpose in nature. Though, strictly speaking, schemes of thermal power development have no connection with the development of water resources, such schemes are also included in this chapter as development of hydro-electric power is closely linked with thermal power schemes. Of the projects commenced and under execution some are financed wholly from loans advanced by the Central Government and others by State Governments, with the help, in regard to individual projects, of Central loans. The aim of the first part of the Plan is to secure the maximum progress possible in the execution of these projects in the period covered by it. It is obviously necessary that the results in the way of additional food-grains and additional power from these projects should be secured at the earliest possible date. It would not be correct, however, to say that in all these cases works were started after detailed

technical investigation and careful assessment of the economic aspects. The inclusion of a project in the Plan does not, of course, dispense with the need for periodical reviews of it at definite stages. A large project usually comprises a number of distinct units or groups of connected works; and, as technical and other investigation in regard to each such group is completed, it would be desirable to review the economic and financial aspects of the project as a whole and where necessary, to modify the scope of the project or of portions of it.

4. The total estimated cost of all irrigation and power projects included in the first part of the Plan is Rs. 734 crores. On this an expenditure of Rs. 144 crores has been incurred upto the end of March 1951. During the five year period covered by the Plan it is proposed to spend Rs. 450 crores on these schemes, leaving Rs. 140 crores to be spent after this period. The projects are calculated to irrigate an additional area of 8·8 million acres in the last year of the Plan and to generate 1·1 million kilowatts of additional power. After the completion and full development of these projects, the total addition to the area irrigated will be 16·5 million acres and to power 1·93 million kilowatts. The annual expenditure on and likely benefits from these projects, year by year, would be as follows:—

Year	Expenditure (Rs. crores)	Additional irrigation (acres)	Additional Power (Kw)
1951-52	99	1,559,000	144,000
1952-53	112	2,710,000	373,000
1953-54	100	4,525,000	889,000
1954-55	77	6,725,000	1,000,000
1955-56	53	8,832,000	1,114,000
Ultimate		16,501,000	1,935,000

(The yearly break-up of cost of a few projects is not included).

5. In the preparation of this plan, projects likely to yield additional food at an early date have been given preference over others and the large multi-purpose projects have been phased with a view to the early completion of their irrigation aspects; the power generation is carefully regulated and taken up in stages as the demand arises.

In our discussions with the State Governments, we have laid great emphasis on proper planning for the development of load for every large generating unit. The pattern of power utilization has to be laid down in advance and development of generating capacity co-ordinated with the development of load so that there is as little lag as possible between power generation and its utilization. For most of the power projects included in the Five Year Plan, detailed or preliminary load surveys have already been carried out and the power to be generated will be utilized largely in meeting the existing power shortage in industrial areas, in replacing old and inefficient plant the replacement of which is long overdue and for pumping of irrigation supplies from tubewells and rivers etc. In the location of new large-scale industries the availability of power from the new power projects is being kept in view.

6. As stated above, the first part of the Plan includes mainly works already commenced. As a result of this, in some States the yearly expenditure on works is high in the first three years and falls off from the fourth year and the State Governments cannot utilise to the full in the last two years of the Plan the technical and other resources built up over a number of years. To meet this situation and also the need that has been felt for including urgent works in other States, especially backward ones, a number of projects have been selected for inclusion in the second part of the Plan which is shortly to be finalised. A statement of the projects which have been included in the first part of the Plan is given in an annexure to this report.

7. In addition to the projects which have been included in the Plan, there are other irrigation and power projects under consideration, which have been or are being taken up for investigation. The aggregate cost of all these projects is expected to be about Rs. 1,400 crores. The aim of the long-term plan of national development should be to take these up for execution. When they are completed in fifteen to twenty years, the area now under irrigation will be doubled and there will be production of power to the extent of 7 million killowatts. It is only by utilising available water resources for irrigation and generation of power on the scale here indicated and by the adoption of intensive measures for improving the standards of agricultural practice and the promotion of cottage, small-scale and large-scale industries with the help of cheap electric power that an appreciable rise in the standard of living of the people can be achieved.

8. For the development of irrigation and power there is obviously need for a national policy devised in the interests of India as a whole. The reasons for this can be given briefly. Firstly, it is not in all parts of India that facilities exist for irrigation and power and where they do exist they should be fully developed on considerations of economic advantage in the interests of the food requirements of the nation as a whole. Recent experience has shown that the food problem is one for India as a whole and is capable of solution only by an all-India policy. Secondly, works in progress and those that are contemplated present difficult engineering and other problems and require the adoption of modern technical methods, sometimes with the help of foreign experts. This calls for pooling of the best knowledge and resources available in India and outside. Thirdly, river valleys are not confined to State boundaries and development schemes of different States have to be co-ordinated and inter-related for the achievement of maximum results. Fourthly, large projects require financial outlays which in most cases are beyond the resources of individual States. Careful financial planning and Central assistance are needed for implementation of the programme before the country.

9. There is another important point to be emphasised. In regard to irrigation and power projects, there will have to be plans for a longer period than five years, as indicated earlier. A large project often takes two to three years to investigate and from five to ten years to execute. In order, therefore, to utilise continuously the technical resources, equipment and organization built up by States, a fifteen-year plan has to be evolved, so that investigation and execution can proceed on lines carefully arranged and the technical personnel and equipment can be utilised to the best advantage.

10. When the Five Year Plan has been in operation, say, for two years, there will be need for a review of the progress made in giving effect to it and for the preparation of a further plan to be implemented from the sixth year onwards. It is necessary that a procedure should be prescribed for determining what projects should be included in this further plan and the order of priority for projects in general. In our view the following broad principles should be observed for including projects in this plan:

(i) A project for inclusion in the plan should have been investigated in sufficient detail from the technical, economic and financial points of view;

(ii) Projects which will add to the food production of the country should receive priority over projects relating to other uses of river waters;

(iii) Projects which are most remunerative—in terms of cost of irrigation per acre—and those which would yield results within a short time should be given preference; and

(iv) Region-wise requirements of food and power should receive due consideration, as also the needs of the backward areas.

11. It is suggested that a Committee should be set up to advise on the relative priority of different projects on an all-India basis after an examination of each project. This body may consist of:

(i) A chairman appointed by the Government of India,

(ii) Additional Secretary, Ministry of Natural Resources and Scientific Research,

(iii) A representative of the Ministry of Finance,

(iv) President, Central Board of Irrigation, and

(v) One eminent engineer not in the service of any Government in India.

The Chief Engineer of the State concerned should be co-opted as a member when a project prepared by him is examined.

12. The plan will be prepared in consultation with the Ministries of Finance and Natural Resources and Scientific Research and the State Governments concerned, after the Committee has examined all the projects that have been investigated and the estimates for which are ready.

FINANCING OF PROJECTS

13. The implementation of a plan of the dimensions proposed calls for a new approach on the part of the Central Government and the States in regard to:

(i) methods of financing projects, and

(ii) enlisting of public co-operation on a nation-wide scale and arousing enthusiasm in the country.

14. In October 1950, the Planning Commission made suggestions to State Governments regarding financial arrangements for irrigation projects. The most important of these is the levy of betterment fee with the object of securing for the States a share of the 'unearned increment'—of the increase in land values that occurs as a result of the provision of irrigation facilities. In our discussions with the States we found a large measure of agreement on the principle of this levy. The Bombay Government have enacted legislation for this purpose and we recommend that other States should pass similar legislation as early as possible.

15. We have further recommended to State Governments to consider an upward revision of water rates in view of the high cost of new works, increased costs of maintenance and the rise in prices of agricultural produce.

16. The levy of agricultural income-tax which has already been introduced in some States has also been recommended in order that the larger holdings may bear their equitable share of the burden.

17. The Planning Commission has suggested to State Governments the creation of a non-lapsable irrigation and power development ways and means fund. State Governments have not yet been able to examine this question in detail and some of them have expressed their inability owing to their financial position even to make a beginning with such a fund. This question is not without difficulties and it is proposed to examine it later in consultation with the Central Ministries and States concerned.

PUBLIC CO-OPERATION

18. Lastly, we would like to emphasise one point of fundamental importance. Projects of such significance to the economy of the country and involving financial outlays of such magnitude as are now contemplated cannot be implemented successfully unless the States can arouse mass enthusiasm and secure public support for the projects on a nation-wide scale. What is essential is that the people should consider these projects as their own and should be willing to make special sacrifices for their completion. The ways in which public cooperation can be obtained and the forms it should take vary from project to project and it should be the aim of State Governments to see that this is secured in the largest measure possible. We have already referred to the levy of betterment contribution for recouping a portion of the capital cost of the projects. The levy of betterment contribution in the form of land from the

larger holdings will be useful in many ways. By this means, it will be possible to obtain the lands needed for resettling persons whose holdings are submerged by reservoirs, for community use, namely, village forests and grazing, markets, roads etc; for effecting improvements in the agricultural economy by bringing about consolidation of holdings, making uneconomic holdings into economic holdings, assigning lands to landless labourers and in other ways. The people in the region should be actively associated with all steps taken for the formulation of schemes of this character and their implementation.

19. There is also another way in which the traditional methods of carrying out such projects can be improved. In preparing estimates for works in which unskilled labour is employed—like the canal system in a large project which absorbs an appreciable portion of the expenditure on the project—the rule should be to adopt a scale of wages on the basis that work should be done by the villagers on the canals in their villages and not on the basis of the work being entrusted to contractors as a whole or in sections. In each village or group of villages the villagers should be organised into cooperatives for taking up the work in their own area. By this means, apart from there being a reduction in cost, the villagers benefiting by a project are enabled to make a notable contribution towards its completion.

The whole subject is one of great importance and it is proposed to discuss it with States.

CHAPTER 8

FORESTS

The forests of a country have a vital role to play in its general welfare and development. They exert a profound influence on its climate. It is considered that a tropical country should have at least a third of its area under forests to preserve its climatic conditions. Forests are important sources of timber, fuel and other products which are used in daily life and as raw materials in industries. They also provide good grazing facilities for cattle. Forests, in addition, are effective agents in the conservation of soil and moisture and play an important part in the water regime of the land. By preventing rapid run off, by promoting percolation of rain water and by the binding effects of the roots on the soil, forests exercise a protective effect on the soil, on steep hill-slopes where the danger of fluvial soil erosion is also the greatest. They similarly exercise a beneficial protective function against desiccation and erosion caused by winds on flat country. While it may be true that forests have a beneficial influence on the distribution of local rain fall, it is doubtful whether their effect on the general rain fall of a region is significant.

2. During the course of his life on this planet, man has not always behaved as if he was fully aware of the important role that forests play in influencing his own future and that of his successors. Indeed, in the early stages, it was inevitable that he should encroach on forest lands for extending agriculture. There was no serious danger in this so long as the area under forests was still large enough, and deforestation had not caused soil erosion on a spectacular scale. But soon a stage is reached beyond which man's encroachment on forests not only ceases to be profitable but actually recoils on him by damage through frequent floods, by the washing away of fertile soils, and in extreme cases, by even making the land uninhabitable.

Forest Policy

3. The total area under both State and private forests in the Indian Union has been estimated at 207,770 sq. miles or 130 million acres representing about 19·2 per cent of the total land area of the country. This percentage is low for the country as a whole. Even these areas are not well-distributed in some of the States, especially in the Indo-Gangetic basin, where the area has fallen to the dangerously low figures of 11% in the Punjab, 16% in the Uttar Pradesh

and 14% in Bihar. In these States, the forests are mostly confined to the Himalayan regions, the other areas being left severely bare. It is in these States that due to non-availability of firewood the amount of cow-dung utilised as fuel is probably the highest in India. In view of the overall deficiency of forest lands in the country as a whole, great caution should be exercised in denuding forest lands. Where the forest area has been reduced to the critical limit or is already below it, the following obligatory steps should be taken:—

(a) There should be a ban on any further encroachment on the forest areas unless an equal area is newly brought under forests; and

(b) The area under forests should be increased by planned afforestation.

We recommend that for each State, the proportion of the area that must be under forests should be clearly indicated by the Central Board of Forestry. Keeping in view the principle of proper land use and the nature of the terrain, in States where the area is above this limit, deforestation may be allowed in consultation with the Forest Department for the extension of permanent agriculture.

LAND UTILISATION

4. It is in the national interests to ensure that all land is properly utilised according to the best use that it can be put to. There are three ways in which land can be productively used, *viz.*, under agriculture, pasture, and forestry. The nature of the soil and the topography of the land will determine which of these forms of productive utilisation should be adopted. The best use of land may be broadly defined as that use under which the land produces most and deteriorates least. In India, in different States, large areas of marginal land have already come under cultivation. It has been alleged that the Grow More Food Campaign has greatly increased this tendency lately. While considerable areas of grass land and wood land have been broken up for the extension of cultivation, the area of fallow land has increased by 10 million acres during the period 1946-49 as compared to the pre-war period. It is important, therefore, that a survey should be carried out to determine which marginal lands are more suited either for pastures or for afforestation with a view to their diversion from agriculture to these uses. This aspect can be linked with the afforestation measures referred to in para 3 above. Such village plantations can act as miniature forests conferring the same benefits over a small area as large forests do over the whole

region. They are also of vital importance to agriculture. Not only will they provide firewood which will help divert the cattle-dung to the fields to build up soil fertility, but will also provide small timber for agricultural requirements, pastures for village cattle, and protection against hot desiccating winds. To start with, we recommend that such a survey should be made in all the intensive cultivation zones, and village plantations should be established primarily on unculturable waste lands, and thereafter, on marginal cultivated lands. Where these do not belong either to the Government or to the village community, they will have to be acquired for this purpose. Similarly, the importance of forming plantations on waste lands or along canal banks, should be kept in view in all irrigation projects. We consider that the necessary survey should be conducted in the intensive cultivation areas of the district through the agency of the District Development Committee. In view of their important role in increasing agricultural production, we recommend that the establishment of village plantations should have the highest priority and should be undertaken on a systematic scale in all the intensive cultivation areas. The extension of such work to other areas is also highly desirable.

SOIL CONSERVATION

5. Land utilisation and soil conservation are complementary to each other. In its widest sense soil conservation covers not only soil erosion but also includes manuring of soils, provision of irrigation and all other measures intended to build up soil fertility. Here we are chiefly concerned with one of its important aspects, that is, the problem of soil erosion. This problem has assumed serious proportions in India.

It is difficult to estimate quantitatively the loss caused to Indian agriculture from the effects of various types of soil erosion. An examination of crop yields over a period of 40 years indicates that Indian soils have reached an almost static condition at a very low level of fertility in which the cropping losses are just recouped by natural processes. The damage caused by soil erosion is apparent to the eye in the form of coverless hills, gullies in cultivated fields and badly eroded lands on the banks of certain rivers, etc. It is estimated that on a moderate slope of 1 in 80 the annual loss of soil per acre per inch of rain varies from 1·6 to 4·3 tons of soil. Once gully erosion starts, the damage resulting from it is very serious, the soil flowing down the gully with ever increasing velocity and volume. The velocity increases with the slope and, when the velocity of the run-off doubles, its carrying capacity is increased to 64 times. Significant increases in yield have been recorded on a field scale within a period of two to three years after the soil conservation measures have been taken. The effect of soil erosion is the same as failure to manure fields. While no progressive losses are noticeable over periods of time for failure to manure or take soil conservation measures, positive action has a very beneficial effect, which becomes apparent in the course of a few years.

Soil erosion may be broadly classified into two categories :—

(1) Erosion of large areas, both on the slopes of hills and down below due to indiscriminate destruction of forests, and erosion due to riverine action;

(2) Erosion of soil from the cultivators' fields. It is common experience that except in the case of bunded rice fields or those where the bunding has been done for other specific purposes, appreciable erosion takes place, depending upon the slope of the fields from which the fertile soil is being continuously lost by sheet erosion or by the formation of ravines and gulleys.

Large-scale erosion problems are, as a rule, not capable of being dealt with by the States on their own partly because of financial difficulties and partly because more than one State is usually concerned with these problems. In order to deal with such large-scale erosion areas, it is necessary to have some central machinery with branches in the States concerned to carry out effectively the programme of soil conservation in a co-ordinated manner. The tackling of these large-scale problems involves also large financial outlay.

In the present state of agricultural development it will be best to concentrate on tackling the problem of soil erosion on the cultivators' fields. It can be brought under control by adopting certain practices with the help of a team of technicians from the departments of Agriculture, Forests and Engineering. The common methods recommended for checking soil erosion in cultivators' fields are: (1) contour cultivation, (2) contour furrows, (3) diversion ditches, (4) outlet channels, (5) contour bunding and terracing, (6) strip cropping, (7) suitable crop rotations, and (8) forest planting and provision of grass strips.

The land utilisation survey referred to above can be well combined with that for soil conservation in all intensively cultivated areas. This survey can be carried out by the district officers of the Agriculture, Engineering and Forest Departments. During the course of this survey measures required for soil conservation at strategic points over the whole area can be indicated. These can then be carried out by the extension staff with the assistance of the Land Development Unit operating in the area. Ordinary soil conservation measures in cultivators' fields can be suggested to them by the extension staff and the Village Production Council.

FOREST PRODUCTS

6. Forest products are put to various uses. They provide structural timber for use by the public as well as by Government departments, sleepers for the railways, veneer logs for the match and plywood industries, bamboos and other materials for the paper industry and a host of other raw materials for various industries. Although forests fall within the State Governments' sphere, in view of the important place of forest products in national economy and national defence it is necessary that the forest policies of State governments in respect of development and conservation should be coordinated. Under the present arrangement, though the Inspector General of Forests at the centre along with his staff is expected to discharge this function, he is not in a position to do so as the working plans of the States and subsequent deviations from the prescription of the working plans are not at present referred to him. We understand that in the past this was the invariable practice but it was later given up. We consider it important that this practice should be revived, and that due weight should be given to the comments of the Inspector General of Forests on the provisions of the plans. Such an arrangement will lead to the coordinated development of the forest resources of India and will make expert technical advice and guidance available to the States. Coordination of general policy is already secured through the Central Board of Forestry which is presided over by the Central Minister for Forests and on which the State governments are represented.

7. The Forest Research Institute at Dehra Dun provides training for the forest services of India and carries on research in forestry and forest products. It is in close touch with the Forest Departments of the States and the results of research find quick and effective application by the States. There is, however, considerable scope for improvement in securing the utilisation of the results of research on the forest products by commercial and industrial interests. For ensuring closer contact between the Institute and the interests utilising timber and forest products, liaison and publicity arrangements at the Institute need to be strengthened.

8. Due to abolition of the zamindari system of tenure many states have become responsible for management of large areas which

were hitherto classed as private forests. These areas were not systematically managed in the past and indeed, in many cases, have been very severely denuded. It is essential for the State Governments to strengthen their staff for surveying these areas, preparing working plans and carrying out systematic development. The necessary expenditure for this purpose has been provided in the State plans.

EXTENSION OF DESERTS

9. Recent topographical surveys show that the great Indian desert of Rajasthan has been spreading outwards in a great convex arc through Ferozepur, Patiala and Agra towards Aligarh and Kasganj at the rate of about half a mile per year for the last 50 years, and is encroaching upon approximately 50 square miles of fertile land every year. We understand that the critical focal point has been located at the gap in the Arvallis near Sirohi through which sand-laden winds from Saurashtra and Kutch fan out, as if through a funnel. Large scale afforestation in this gap and along the outer fringes of the advancing desert to create a shelter belt of forests against the forcing gusts of wind is a remedy that demands immediate attention. In view of its all India importance, this work should be accorded a high priority and should be undertaken immediately under the guidance and control of the Central Government. Funds for this purpose have been provided in the plan.

FACILITIES FOR FOREST TRIBES

10. Various tribes inhabit forest areas, and most of them are scheduled tribes under the Constitution. Their welfare is essentially linked up with the development of forest areas. They provide the labour required for all forest operations and much of the minor produce of the forests is collected by them. It should be an object of State policy to organise them into cooperatives and to arrange collection and exploitation of forest produce through them. At present Government auction these rights in favour of contractors, who exploit these tribes to a considerable extent. The State of Bombay has set a good example in this direction which is worthy of emulation by others.

OUTLOOK ON FORESTS

11. Forests are a renewable national asset capable of yielding under proper scientific management not only a steady annual income but also a variety of products essential for human welfare. They

should be treated as capital which has been handed down to us in trust by our ancestors and which we should pass on intact, and if possible improved, to future generations. The present generation is entitled only to the interest on capital. Inroads have been made into the forest capital during the war and in the post-war years, especially in private forests, as a result of the threat of extinction of private rights of ownership. A stage has been reached where forestry should no longer be regarded as a handmaid of agriculture but as a necessary complement to it. It is from this angle that we must approach the question of conservation and development of all forests in India.

CHAPTER 9

FISHERIES

SCOPE FOR DEVELOPMENT

THE inadequacy and inaccuracy of the existing statistics for fisheries has been emphasised by various committees which have considered the question of development of Indian fisheries from time to time. Dr. Radha Kamal Mukerjee had estimated annual fish production at 7 lakh tons in 1938 for undivided India. In 1948 the production for the Indian Union was estimated at 5·2 lakh tons valued at Rs. 17·9 crores. Of this, nearly 71 per cent comprised of sea and estuarine fish and 29 per cent fresh water fish. In the case of sea fisheries only the coastal waters are fished and there is as yet practically no development of off-shore fishing. In the case of inland or fresh water fisheries, there are no statistics for the area developed so far, but it is known that it forms only a fraction of the total water area of 1½ crore acres. At the present level the availability of fish works out at 3·4 lbs. per annum *per capita* as against approximately 16 lbs. in Ceylon, 70 in Burma and 90 in Japan. The scope for development of fisheries in India is thus very great.

DIFFICULTIES

2. The main difficulty is lack of organisation amongst fishermen. It is said that the fisheries trade is the most beset with middlemen and even if the statement is exaggerated, it brings out the immense scope for cooperative organisation in this industry. Almost everything required by fishermen for carrying on their trade, *e.g.*, boats, nets, yarn, sail cloth, etc. has to be obtained through middlemen. They have also to part with much of their earnings to the middlemen through whom they market their catch. A determined policy for organising cooperatives and liberalising supplies of essential requirements are the immediate steps to enable the fishermen to increase their working hours, and thereby substantially increase their production and earnings.

FACILITIES REQUIRED

3. The provision of landing facilities along the coast for ordinary and mechanised craft and quick land and water transport with refrigeration facilities for preservation and marketing of fish are the two

great needs of the industry. A considerable improvement in production could be achieved if these are provided.

FINANCE

4. Fisheries schemes from the States at present qualify for G.M.F. assistance from the Centre which was of the order of about Rs. 30 lakhs in the year 1949-50. It would be a distinct advantage if each State could be indicated the amount that would be available to it in the next five years, so that it could draw up a comprehensive programme of fisheries development.

FRESH AND BRACKISH WATER FISHERIES

5. The priorities here are conducting a thorough survey of culturable waters and thereafter investigation of indigenous fish seed sources in order to undertake large-scale stocking operations. For States which are at present deficit in fish seed resources, supplies will have to be arranged from surplus areas where large-scale production of fish seed should be encouraged.

6. The utilisation of inland waters, where private rights exist, has presented some difficulties. In some States the owners are reported to be unwilling to allow development of the area for fear of their ownership rights being prejudiced. The abolition of the zamindari in the different States would reduce the magnitude of this problem very considerably. In special cases, where an owner fails to carry out the suggestions made by the Fisheries Department, the State Government should consider the acquisition of the fishery rights under the Land Acquisition Act or other suitable legislation for purposes of management. The Fisheries Department should have facilities for developing fisheries in all State waters without necessarily undertaking the management of these waters in other respects.

MARINE FISHERIES

7. India has a coast line of 2,900 miles and possibilities of development of sea and estuarine fisheries are very considerable. Only a small portion of this wealth is being exploited at present, mainly because the small country craft cannot operate beyond a few miles from the shore. Mechanisation of fishing operations would enable the fishermen to reach the areas outside the range of the existing craft and enable them to fish for longer hours. The best way in

which mechanisation can be accomplished is likely to vary from region to region, just as the existing methods differ in response to the nature of the grounds being fished, the type of fish to be caught and other local conditions. While some of the indigenous craft could be brought into service on the basis of mother-ship operations certain other types may be found suitable for mechanisation. For instance in the States of Bombay and Madras new small mechanised vessels conforming to the traditional lines of the craft normally used have also been recently introduced and found reasonably satisfactory.

COMMERCIAL TRAWLING

8. Commercial trawling has been attempted off and on in the Indian Waters from 1907. A trawler operated in the Bay of Bengal in 1908-11, in Bombay area in 1921-22 and in the Madras area at different times. All these ventures proved unsuccessful. Certain Indian companies working thereafter met with the same fate. The Fisheries Department of the Government of India is now engaged in exploratory trawling in the waters off Bombay. The Government of West Bengal are also engaged in similar operations and have met with some success in the Bay of Bengal. Exploratory trawling is of importance as a foundation for the development of commercial trawling through private enterprise and also for the development of off-shore fishing through small power vessels. In view of past experience, it will be useful if a small committee of commercial firms is associated with the work at each centre to create confidence in the reliability of the data obtained. There is very little scope for commercial trawling in the absence of reliable data regarding location of fishing grounds and kinds and quantity of fish available.

9. Mechanisation of fishing operations which has immediate prospect of success should, therefore, proceed along the following lines:—

(1) Mechanisation of existing craft for fishing with indigenous and improved tackle and gear;

(2) Where existing craft cannot be mechanised, designing new powered craft which would be sufficiently cheap and within the means of fishermen or their Co-operative Societies;

(3) Introducing dory system, where the mother craft is used either for towing the boats to the fishing grounds or for carrying them in the mother craft; and

(4) Trawling for exploratory work.

CHAPTER 10

MINERALS

INTRODUCTION

In the last two years the Government have laid the foundations for mineral development by:—

(i) the announcement of a mineral policy;

(ii) the expansion of the Geological Survey of India for implementing a programme of mineral exploration and development; and

(iii) the establishment of a Bureau of Mines for securing co-ordinated development of the country's mineral reserves with due regard to conservation, especially of the higher grade ores.

2. Although progress has been made in the survey of mineral reserves in recent years and the principal mineral regions have been ascertained, exploration has not been thorough or complete and present estimates of reserves are rough guesses. The Plan, therefore, provides for systematic detailed investigation and surveys by the Geological Survey of India, the Bureau of Mines and the National Laboratories for the quantitative and qualitative assessment of the country's reserves of important minerals.

3. The position in regard to mineral resources, as at present known, may now be stated. Coal, iron ore, manganese ore, mica, gold, ilmenite, and building materials are produced in India in quantities of real importance to industry and other sectors of the economy. Other minerals of which India possesses good reserves are bauxite, industrial clays, steatite, chromite, atomic energy minerals, refractory minerals and abrasives. The more important minerals, supplies of which are inadequate for any large industrial development, are sulphur, copper, tin, nickel, lead, zinc, graphite, cobalt, mercury and liquid fuels. Except for these India is endowed with the basic mineral and power resources needed for industrial expansion though, in relation to the population, the reserves compare unfavourably with the important mineral regions of the world.

MINERAL POLICY

4. Till recently the tendency in India was to exploit minerals largely for purposes of export; they were not regarded as a source of national wealth whose working and utilisation should be planned on sound economic principles in the best interests of the country. As minerals form the basis of modern industries in peace and in war, it is necessary to have a clear-cut policy for their working and utilisation. The keynote of this policy should be conservation and economic working. The essentials of such a policy of co-ordinated and economic development of the mineral resources should include:—

(i) *Appraisal of reserves*: In regard to almost every mineral, there is no reliable data on reserves. It is therefore necessary to investigate the mineral deposits in a systematic manner and prepare detailed maps. The more important minerals, whether for domestic consumption, for defence purposes or for export, should be given high priority in this programme.

(ii) *Proper conduct of mining operations*: At present only a comparatively small number of mines are being worked in an efficient manner under proper technical guidance. Many units are too small in size or too poorly financed for proper working. Lack of a conservation policy is also responsible for the present condition of the industry. There is a large wastage, especially in minerals of marginal grades, these being either abandoned in the mines or thrown away on the mine-dumps. To bring about a general improvement in methods of mining as well as in the recovery of economically workable resources, mining interests will have to employ properly qualified technical personnel for conducting mining operations. Government should also assist in this direction by organising a sufficiently large and competent body of inspecting officers composed of mining engineers and geologists, whose function will be to inspect every mining operation and advise the mine-owner on proper methods of development and to ensure that the advice given is implemented.

(iii) *Leasing of mineral properties and regulation of mineral development*: The Mines and Minerals (Regulation and Development) Act (Act No. LIII of 1948) gives powers of regulation to the Central Government. Under this Act, rules have been framed for the issue of prospecting licences and mining leases for (a) natural gas and petroleum, and (b) all other minerals. The latter rules (Mineral Concession Rules) were brought into force in 1949. Under these, the Central Government's concurrence is necessary for the issue of licences and leases for atomic energy minerals and rare minerals such as those containing uranium, thorium, vanadium, beryllium, titanium, columbium etc., coal, gypsum, lead, zinc, and copper ores. Two changes are necessary in these rules in the national interest. In the first place, the Central Government's concurrence should be needed for issue of licences and leases of other important minerals, namely, iron ore, manganese ore, chromite, bauxite, and mica, in view of their strategic value. It is not of course necessary that all cases should be referred for prior concurrence. A suitable limit may be fixed to ensure that all important cases are so referred. Secondly, in the grant of mineral leases, regard should be had among other factors to the size of mining properties. There is provision in the Mineral Concession rules to limit individual holding of large areas. The fixing of a minimum limit is equally necessary as proper technical working becomes impossible where the areas covered are small.

(iv) *Statistics of Mineral Industry*: There is provision under Act LIII of 1948 for the collection of detailed statistics of the mining industry. The Bureau of Mines should be empowered to collect statistics relating to the mining industry, so that they can be collated and studied in relation to development and planning. Statistics regarding cerain aspects of the mineral trade and mineral economics of other countries, which may have a bearing on India's economy, will also have to be collected.

(v) *Mineral trade*: Some of the important minerals of India, *e.g.*, mica, manganese and chromite, are worked largely for export. It should be the policy as far as possible, to convert minerals into finished, or at least semi-finished products for purposes of export.

(vi) *Research*: There should be systematic research in different aspects of the mineral industry including mining, beneficiation and conservation, and utilisation of minerals. The problems connected with these will have to be studied carefully. Minerals of low or marginal grades will have to be beneficiated by mechanical means under local conditions wherever economically possible, and the methods of processing minerals for actual use will have to be studied.

5. The Plan lays down a programme based on the above principles and arranged in order of priority with the necessary financial and other estimates.

SOME IMPORTANT MINERALS

6. *Coal*: India's coal mining is centred mainly in Bihar and West Bengal. The total reserves of coal down to a depth of 2,000 ft. are estimated at 65,000 million tons of which good quality coal would

amount to 5,000 million tons. The reserves of coking coal, however, are small and would amount to only about 2,000 million tons and this may well be halved unless measures of conservation, notably stowing, blending and washing are enforced. Thus, though speaking generally, the coal reserves may be considered adequate for the industrialisation of the country, the position in regard to coking coal, as ascertained by a specially organised survey under the auspices of the Committee for Conservation of Metallurgical Coal set up in 1949, is clearly unsatisfactory. The future policy should, therefore, be one of strict enforcement of the conservation measures recommended by the Committee. This involves the prevention of the use of coking coal for purposes other than for the production of iron and steel and coking and the 8 million tons now used for such non-essential purposes should be replaced by coal of other quality. The switch-over from metallurgical to non-metallurgical coal will have to be effected without dislocating the industry. With this consideration in view the following programme is recommended:—

(i) Production of coking coal may be maintained at the present level but under no circumstances should new fields be developed. The closing of mines producing coking coal is not recommended as they cannot be re-opened without large capital outlay.

(ii) Stowing, blending and washing should be enforced by law. It is believed that enforcement of stowing will lead to reduction in output of coking coal.

(iii) Selective mining should be stopped effectively.

(iv) The expansion programme of existing steel works and the programme for setting up a new pig iron plant included in the Plan will increase the essential demand for coking coal by 1·2 million tons from the 3rd to the 5th year of the Plan.

(v) A replacement programme, *i.e.*, for replacement of coking by other coal—should be taken up in two stages; as an initial step the selected A & B coking coal used in the railways and for other non-essential purposes should be replaced by non-metallurgical coal. When this programme has been completed, the replacement of the grade I & II coking and semi-coking coal should be taken up.

(vi) So long as the coking coal produced in the country is in excess of the quantities needed for the iron and steel industry and coking, such excess production may be exported to earn essential foreign exchange under special agreements negotiated with other countries. In other words, the replacement programme for each year will be based on (i) the exports expected during the year and (ii) the demand of coking coal for essential purposes.

7. Questions relating to coal are now dealt with by several Ministries of the Central Government and, in addition, the State Governments are in charge of administration of leases for working coal properties. Further, cesses are levied on coal under different Acts for different purposes and separate agencies administer the funds so set up. After a review of the whole position, the Planning Commission has made the following recommendations:

(i) Legislation for enforcement of stowing for conservation in addition to safety, washing and blending should be assigned the highest priority in the interest of conservation of national resources of high grade coking coal.

(ii) A consolidated cess should be levied in place of the existing separate cesses, the yield of which should be allotted for safety and conservation measures, labour welfare, research and other purposes, according to requirements.

(iii) A machinery—a Coal Board—should be set up which will examine all questions relating to coal from a comprehensive point of view and make recommendations to the ministries concerned and thus assist in the evolution and execution of a co-ordinated policy.

These recommendations involve a single legislative measure for coal which would provide for the purposes indicated above.

A comprehensive plan for coal has been submitted separately.

OTHER MINERALS

8. India possesses fairly large quantities of high grade iron ore and may be classed as one of the countries which can support a long continued development of heavy industry. Proposals have been made in the Plan for:

(i) the increase of production of iron and steel in existing units; and

(ii) the setting up of a pig iron plant.

India has reserves of high grade bauxite and manganese ore. The Plan indicates elsewhere industrial projects based on these minerals. India is also the world's main source of supply of mica, ilmenite and monazite.

9. India's reserves of non-ferrous metals are insignificant. Its resources of copper, lead, zinc and sulphur, all of which are of vital importance in industrial development are poor. The average cost of the imports of these four mineral products amounted in 1949 to over 12 crores.

10. Very little petroleum is produced in India. Digboi, the only source at present yields about 7% of India's requirements. Indications of productive oil fields are also present in Tripura State and in the Kangra District in East Punjab.

PROGRAMME OF MINERAL DEVELOPMENT

11. It should be stated again that in regard to important minerais the reserves, though known to be large enough, are not known in sufficient detail especially in regard to quality for purposes of development. There is much work remaining to be done immediately in exploration, estimation of reserves, improvement of mining, collection and organization of statistics and researches into the beneficiation and utilisation of minerals. The Government organisations mainly concerned in the execution of this programme are:

1. The Geological Survey of India
2. The Indian Bureau of Mines
3. The National Fuel Research Institute
4. The National Metallurgical Laboratory
5. The Central Glass & Ceramic Research Institute.

Detailed programmes of work in order of priority to be carried out by the above organizations have been suggested in the Basic Plan. The Geological Survey of India, the National Research Institutes concerned and the Indian Bureau of Mines, have to be expanded in order to implement this programme of work during the next five-year period. Provision for this purpose amounting to about Rs. 1 crore has been made in the Plan.

12. To coordinate the work of these organizations it is suggested that there should be a Technical Co-ordination Committee with representatives from them. This Committee should meet every quarter to review the progress of work and to advise the Ministry generally, on the steps to be taken for the implementation of the Plan.

CHAPTER 11

INDUSTRIAL DEVELOPMENT AND POLICY

INTRODUCTION

INDUSTRIAL progress in India has been on a significant scale during the last thirty years. With the exception of textile industries which took root towards the end of the 19th century, many of the important industries developed during this period. The policy of 'discriminating protection' adopted in 1922 and the circumstances created by the second world war and its aftermath contributed to this development. Between 1922-23 and 1949-50, the production of coal went up from 19 million tons to 32 million tons and that of steel ingots from 0·2 million tons to 1·4 million tons; industries like sugar, cement, soap and matches quickly attained a level of production adequate to meet domestic demand; and the number of persons employed in industry increased from 1·5 millions to 2·4 millions.

THE INDUSTRIAL STRUCTURE

2. Industrial development has, as might be expected in an underdeveloped country, so far been confined largely to consumer goods industries producing articles of general consumption like cotton textiles, sugar, salt, soap, leather goods and paper. In respect of many of these commodities the productive capacity of the country is adequate to meet the existing demand. Industries manufacturing 'intermediate products' such as steel, cement, power alcohol, non-ferrous metals, chemicals etc., which form the raw materials of other industries, have also been established. But, except for cement, their productive capacity is much below the requirements. During the war and the post-war period, new industries manufacturing a variety of consumer goods like bicycles, radios, automobiles, electric fans and domestic appliances have been set up. And with the establishment of a shipbuilding yard and of plants for the manufacture of machine tools, diesel engines, textile machinery and locomotives, a beginning has been made in the direction of capital goods industries. Several of these war and post-war industries are, however, still in the process of development. On the whole, it seems that while the consumer goods industries are well-established, 'producer goods' industries have lagged behind.

WAR AND POST-WAR DEVELOPMENT

3. The industrial undertakings established during the war and the post-war period were started under inflationary conditions and in times of world-wide scarcities, when everything that could be produced had a ready market irrespective of its price and quality. Naturally, the consideration whether they would be able to conduct their operations profitably under competitive conditions did not receive the attention it deserved. The position of some of the new units is not satisfactory from the point of view of supplies of raw materials or the size of the market or both; and several of them are defective in respect of financial organization, technical planning and mechanical equipment. The shortcomings of the war and post-war industrial development are clearly brought out in the report of the Fiscal Commission as well as in the second annual report of the Industrial Finance Corporation of India.

INDUSTRIAL ORGANIZATION AND MANAGEMENT

4. During the last few years, the Central and States Governments have made appreciable investments in industrial enterprises. Public investments of this kind, however, form a very small proportion of the total capital employed in industry. Practically, the entire industrial field is controlled by private enterprise. A majority of the industries are operated and managed through the 'managing agency' system, under which, a firm of managing agents operates a number of industrial concerns of different types on the basis of long term contracts. The managing agents get in return a commission which is related to production, sales or profits. Although, in the initial stages, the managing agency system played an important role in the development of industries, it has several drawbacks. Lately these drawbacks have become prominent with the result that a greater conflict of interest between the managing agents and the shareholders is becoming apparent. There has been a fairly brisk traffic in the managing agency rights themselves which has not been helpful to the concerns directly affected. On the contrary, it has produced adverse effects on the capital market. Widespread abuses in respect of purchases of raw materials, sales of finished products and interlocking of financial transactions have come to light. Above all, a number of managing agency firms have failed to make improvements in their administrative set-up, factory management, purchase and sales organisation, system of accounting, etc., which are essential for industrial efficiency.

DECLINE IN PRODUCTIVITY

5. A disquieting feature of the recent industrial development is the substantial decline that has taken place in the productivity of industry in general, since 1939. Actually, as compared with the pre-war period, in several industries, production has gone up, but productivity, which is generally expressed in terms of output per worker—not necessarily to be construed as productivity of labour—has diminished. This means that the cost of production per unit, in terms of real resources, has increased. On a rough estimate, it appears that productivity has declined by about 20 to 30 per cent. This may be attributed to various factors. During the war, industrial establishments were working two and three shifts but were not able to carry out even the normal replacements to plant and machinery. The latter, in consequence, lost a good deal of their efficiency. Notwithstanding the heavy imports of machinery in the post-war period, the wartime arrears of replacement are still far from being covered. Supplies of raw materials, too, besides being inferior in quality, have not been regular. The level of management and the attitude of workers have both deteriorated and because of the prevailing scarcity and high prices, a number of inefficient units, which otherwise might have long disappeared, have continued to exist. It is not possible to allocate to each of these factors its specific share of responsibility for the loss in productivity, but the fact remains, that because of them, industry is now using a much larger volume of real resources per unit of output than it used to consume before and that this is partly responsible for inflating the level of prices.

PRIORITIES FOR DEVELOPMENT

6. *Objectives of Industrial Planning.*—The removal of the lacunae and drawbacks in the industrial structure, which have been mentioned above, would be an important aspect of the Plan. It would mean establishment of new industries or industrial units for manufacturing intermediate goods and machinery, reorganisation and coordination of the enterprises set up during the war and the post-war period, improvement in productivity, etc. Since the total resources available for development are limited and since projects calculated to raise agricultural production are given the highest priority in the Plan, the resources available for industrial expansion are limited. In determining how these limited resources should be utilised, a number of considerations, besides those of rectifying the drawbacks of the existing structure, would have to be taken into account. Broadly, the allocation of resources would have to be directed towards the achievement of the following objectives:

(a) the demands which schemes for agricultural development and expansion of irrigation and power would make on industrial products should be satisfied;

(b) the output of essential consumer goods should be raised to defined targets primarily through the fuller utilisation of the present capacity of the industry;

(c) the capacity of industries producing pig iron, steel, heavy chemicals etc., which are of basic importance to the general economic development of the country should be expanded; and

(d) the lacunae and drawbacks in the existing industrial structure should be removed.

7. To lay down an order of priority for different industries, it is necessary to review their position *vis-à-vis* the objectives mentioned above. For this purpose industries might be divided into three categories:

(a) defence industries which produce means of warfare such as arms, ammunition and explosives, military aircraft and control instruments;

(b) 'producer goods' industries which manufacture a variety of 'intermediate products' like steel, cement, chemicals and jute goods, and the instruments of production, usually termed 'capital goods'; and

(c) consumer goods industries which make articles for direct consumption.

Defence industries come wholly within the purview of the public sector and are in a class by themselves.

8. *Producer Goods Industries.*—The producer goods on which the development of agriculture, irrigation and electricity is likely to make demands, are intermediate goods like steel, cement and fertilizers and capital goods such as agricultural implements, diesel engines, pumps and heavy electric machinery. A number of industries manufacturing certain types of goods coming under these categories—except heavy electric machinery—have been started in this country. But, excepting the steel and cement industries, many of them are still in early stages of development and it would be some time before the propspects of their being established on an economic

basis could be ascertained with any degree of definiteness. On the other hand, since the demand for steel, cement and fertilizers is bound to go up, and since it has been demonstrated that conditions in India are favourable for their expansion, it is desirable that their productive capacity should be increased.

9. Besides those which would be directly affected by the Five Year Plan, there are other producer goods industries such as aluminium, heavy chemicals, power alcohol, locomotives, machine tools, textile machinery, ship-building, etc., which have been started in the country and the development of which is useful from the point of view of establishing some sort of a balance in the industrial structure. Production of jute manufactures, light engineering products etc., which is below the capacity of the respective industries, should also be raised.

10. In the development of producer goods industries special emphasis must, however, be placed on the expansion of pig iron and steel. Even at the present level of demand, their production in the country falls short by a large margin. Since pig iron and steel are an important basis for development whether it be in agriculture, industry or transport, and since they are essential for defence, they should be given the highest priority among producer goods. Apart from the expansion of existing plants, a new project for the production of steel might not come into full operation during the period of the Five Year Plan. But it is essential to devise without delay a scheme for the establishment of a plant which would alleviate the shortage of pig iron and would be capable of being developed into a steel producing unit.

11. Generally, producer goods industries not covered by the above considerations should be accorded a lower priority.

12. *Consumer Goods Industries.*—Consumer goods industries may be classified under two categories, those producing essential goods of general consumption and those manufacturing less essential and luxury goods. The capacity of industries producing essential goods like cotton textiles, sugar, salt, matches and soap is adequate to meet the requirements of the people at the current level of prices and incomes. Excepting salt and matches the actual production of these industries is, however, much below capacity. This is mainly on account of the shortage of raw materials and the continued existence of a large number of inefficient units. Considering that almost all the principal industries in the group have adequate productive capacity to meet the current demands of consumption, it is neither necessary nor desirable to expand them further during

the period of the Plan. Generally, except for the production of cotton yarn, which is not likely to be enough to satisfy the demand of handloom weavers even if the cotton textile industry works to its fullest capacity, there does not appear to be any need for the establishment of new units in this field.

13. For increasing the output of consumer goods, effort must be concentrated on the fuller utilization of existing capacity, by removing raw material shortages and by improving the efficiency of the existing units through modernization of plant and machinery, reorganisation of uneconomic units, standardisation of production and scientific management. Transfer of some of the units from their present location, as, for instance, in the case of the sugar industry, might also be desirable.

14. Industries engaged in the production of consumer goods of secondary importance, such as, automobiles, radios, bicycles, electric fans, etc., are in second order of priority. Concerns in which substantial investments have already been made and which have reasonable prospects of success should, however, be given the opportunity of developing to the minimum economic size.

15. *Order of Priority.*—In the light of this brief review, the general order of priority for the development of industries in the Five Year Plan, which would secure the four fold objective mentioned in the previous section, may be stated as follows:—

1. Fuller utilization of existing capacity in producer goods industries like jute, and consumer goods industries like cotton textiles, sugar and soap.

2. Expansion of the productive capacity of producer goods industries like steel, cement, fertilizers, heavy chemicals, machine tools, etc., and

3. Completion of industrial units on which a part of the capital expenditure has already been incurred.

16. In the nature of things, this order of priority, although it indicates a system of preference in a general way, cannot be exclusive. At any point of time, a balanced allocation of resources between the different groups is essential and would have to be ensured.

Plans of Development

17. *Private Sector.*—As the bulk of the resources which the State can mobilise would be used for the development of agriculture, irrigation and power, it would not be able to make large investments in industry. The scope of public expenditure would be confined mainly to the completion of the projects which Government—both at the Centre and in the States—have already taken up. New projects would not be started unless they are of a very high priority and are not likely to be carried out without Government undertaking direct responsibility. The expansion of industrial production during the period of the Plan would be largely the responsibility of the private sector which, subject to the overall objectives of the Plan and the controls necessary for their achievement, would be free to pursue its normal activity. It is not possible to state with any degree of certainty the progress which private industry would be able to make but a broad indication of the programmes of expansion in some of the important industries can be had from the following table:—

Expansion Programmes in the Private Sector

Name of industry	Unit	1950-51		1955-56 (Estimated)	
		Installed capacity	Production (1950)	Installed capacity	Production
Agricultural Implements :					
(*i*) Pumps (Centrifugal)	Nos.	37,407	30,292	86,801	78,126
(*ii*) Diesel engines	Nos.	11,826	4,596	51,326	46,193
Alcohol :					
(*i*) Power	'000 Bulk Gals.	128,68	44,97	2,11,18	1,90,06
(*ii*) Rectified spirit	'000 Bulk Gals. (*a*)	29,49 82,90	34,36	29,49 (*b*)	26,54
Aluminium (Primary)	Tons.	4,000	3,600	25,000	20,000
Automobile (manufacturing only)	Nos.	35,000	3,840	35,000	25,000 (*c*)
Cement	'000 Tons	32,76	26,13	51,40	46,31

(*a*) Installed capacity of distilleries exclusively engaged in the production of rectified pirit only.

(*b*) Rectified spirit from power alcohol distilleries only. Figure relating to other distilleries is not given because it is not possible to forecast how many of these will change over to power alcohol or continue in existence.

(*c*) Increased percentage of component parts to meet the requirements of 25,000 vehicles. will be manufactured within the country.

Name of industry.	Unit	1950-51		1955-56 (Estimated)	
		Installed capacity	Production (1950)	Installed capacity	Production
Cotton Textiles :					
(i) Yarn	Million lbs	1,646	1,174	1,671	1,600
(ii) Cloth (mill)	Million Yards.	4,722	3,665	4,741	4,500 (d)
Fertilisers :					
(i) Superphosphate	'000 Tons	1,23	52	[2,16	1,79
(ii) Ammonium sulphate (e)	'000 Tons	74	47	[1,29	[1,00
Glass and Glassware :					
(i) Hollow-ware	'000 Tons	2,11	86	2,32	1,74
(ii) Sheetglass	'000 Tons	12	5	36	27
(iii) Bangles	'000 Tons	35	16	35	17
Heavy Chemicals :					
(i) Sulphuric acid	'000 Tons	1,50	1,02	2,30	1,80
(ii) Soda ash	'000 Tons	54	44	86	78
(iii) Caustic Soda	'000 Tons	19	11	33	29
Matches	'000 Cases	7,06	5,23	7,66	6,90
Paper and Paper Board	'000 Tons	1,40	1,09	2,12	1,65
Salt (f)		55,613 (acres)	26,22 ('000 tons)	65,200 (acres)	30,75 ('000 tons)
Soap	'000 Tons	2,69	1,02	2,88	2,70
Steel (finished)	'000 Tons	10,71	10,05 (g)	16,59	13,15
Sugar	'000 Tons	15,20	11,00	15,40	15,00

(d) This excludes an estimated production of 1900 million yards of cloth from the hand looms, which, together with the output of the mills, will provide for a *per capita* consumption of 15 yards and an export of 600 million yards.

(e) Figures of production of ammonium sulphate are exclusive of installed capacity and production of the Government Fertiliser Factory at Sindri and the projected Government Fertiliser Factory in Mysore.

(f) Figures of capacity are expressed in number of acres and those of production in thousands of tons.

(g) Figure relates to the sugar season 1950-51 and not the calendar year 1950.

18. This programme of expansion has been compiled on the basis of information received from the industries concerned, in consultation with their representatives, and is generally in conformity with the order of priority laid down in para. 15 above. Installed capacity for 1955-56 includes schemes in respect of which preliminary investigations have been completed and orders for machinery placed, as well as the expansion which it is considered necessary to effect and for which definite recommendations have been made. In most of the industries, production is expected to record a substantial increase but it would arise largely from the fuller utilisation of present capacity. Creation of new productive capacity either by enlarging existing units or by establishing new ones would be comparatively small. During the period of the Plan, as a result of the programme of expansion envisaged, the increase in the output of some of the important intermediate products would be of the following order: steel 300,000 tons, sulphuric acid 78,000 tons, soda ash 34,000 tons, caustic soda 18,000 tons and cement 2,000,000 tons. The production of diesel engines would be higher by 41,600 and that of pumps by 48,000. In consumer goods industries, the increase in out-put would be: cloth (mill made) 835 million yards, sugar 400,000 tons, footwear 11 million pairs, soap 168,000 tons, salt 450,000 tons, paper and paper board 56,000 tons. etc. This increased flow of goods would reduce the pressure of demand in many lines and, in certain cases, make it possible to increase the volume of exports.

19. *State enterprises.*—The picture of industrial development envisaged in the Plan would not be complete without reference to the State enterprises, which would be started or which would come into production between 1951-52 to 1955-56. Because of the limited resources which the State could spare for investment in industry, such enterprises would be few in number, but, from the point of view of economic development, they have special significance. Some of the important projects which Government have already implemented, or which it has decided to take in hand during the next few years, are: the Sindri Fertilizer Factory, the Chittaranjan Locomotive Works, the Dry Core Cable Factory, and the various schemes for the production of machine tools, telephone equipment, mathematical instruments, etc. It would be noticed that all these projects are concerned with the manufacture of producer goods, which are essential not only for sustaining industries already established but also for facilitating future progress. The fertilizer factory which is expected to be in production in 1952, would raise the output of ammonium sulphate by 3,50,000 tons per annum and make the country nearly self-sufficient in respect of this important inorganic fertilizer. Similarly, the Chittaranjan Locomotive Works, along with the Tata

Locomotive and Engineering Works, would supply to the Indian railways all the locomotives they need. All these projects are under the jurisdiction of the Central Government. The schemes which are being considered by the State Governments are of minor importance, excepting the scheme of the Madhya Pradesh Government to manufacture newsprint and that of the Mysore Government for the manufacture of nitrogenous fertilizers.

PROBLEMS OF PLANNED DEVELOPMENT AND MEASURES FOR THEIR SOLUTION

20. The place of private enterprise in a planned economy such as we visualise has been explained in an earlier chapter. Economic development in India has to be based on the existence, side by side, of a public and a private sector. But the system of private enterprise will have to be very different from that which now exists; industry will have to accept not only the objectives of social and economic policy but also its own obligations towards the worker, the investor and the consumer. Private industry will have to fit into the scheme of national planning equally with other sectors of national economy and will have to be so conducted as to satisfy the public at large that it meets social needs adequately and avoids misdirection of national resources as well as exploitation or corruption. A reorientation of outlook is essential on the part of the industrialist, the entrepreneur, as well as the worker. It is essential that private enterprise should function in conformity with the social and economic policy of the State, recognise its full responsibilities, and cooperate in the implementation of such measures of control and regulation as are considered necessary. On their part, in order to ensure the direction of productive resources for achieving the objectives of planning, Government should help in building up a tradition of close cooperation between industry and labour and should retain and exercise powers in order to see that the industries function in the wider interests of the community. The progress of industry would depend on the nature and efficiency of the control which Government would exercise specifically in relation to industry, the availability of adequate finance and the improvement in industrial organisation and management. Each of these questions is of vital importance to the Plan.

INDUSTRIES (DEVELOPMENT AND CONTROL) BILL

21. In April, 1948, Government announced their broad policy in regard to industrial development. This policy demarcates spheres for public and private enterprise and lays down that, in respect of

certain basic industries of importance, planning and regulation by the Central Government is necessary in national interest. We believe that within the framework of this policy, it is possible to have a programme of industrial development which meets the country's present needs. Since the bulk of public resources under the Plan are to be devoted to the development of agriculture, irrigation and power, cottage industries, and social services, it follows that, for the development of industries, resources must, to a great extent, come from the private sector. The Plan does not, therefore, provide for any large extension of the public sector in the industrial sphere. The Industries (Development and Control) Bill, 1949, which Government introduced in pursuance of their policy for the regulation of industry in the national interest should, however, be passed without any further delay. The important provisions of this Bill are:—

(1) No new industrial unit can be established or substantial extensions to existing plants made without a licence from the Central Government, and while granting licences for new undertakings Government can lay down conditions regarding location, minimum size, etc., if necessary.

(2) Government can make investigations into certain specified industries or undertakings in industries (a) which show a fall in production, a deterioration in the quality of the product, a rise in the price of the product, or which show tendencies in these directions; (b) which use resources of national importance; and (c) which are managed in a manner likely to do harm to the interests of the shareholders or consumers: and issue proper directions for rectifying the drawbacks.

(3) Government can take under its own management undertakings which fail to carry out its instructions for improvement in management and policies.

22. All these powers are to be exercised by Government through a Central Board, consisting of three persons having wide experience in industrial, commercial, technical or judicial matters or in administration and appointed by it. The Central Board is also empowered to exercise control over capital issues in the industrial sphere. These powers would be of considerable use in directing the limited resources of manpower, materials and finance into desired channels and for ensuring the general efficiency of industries. Under the Bill, as it stands at present, the Central Board is entitled to make

investigations, to take over the management of recalcitrant undertakings and to sanction capital issue only in respect of a limited number of industries. It will be very useful if the Central Board is endowed with authority to use these powers in respect of all the important industries.

DEVELOPMENT COUNCILS

23. There is at present no machinery for enabling private industry to play its part in planned national development. The question of development and regulation of industries has, therefore, to be considered not so much from the point of view of how Government should exercise certain powers in relation to industry as of the kind of machinery which can work from within each industry and help to bring about a steady improvement in the standards of productivity, efficiency and management. It is only by establishing a system of management which is efficient in itself and is seen to function in the interests of the community as a whole that a system of private enterprise can, in future, gain the confidence of the public. It is, therefore, necessary to provide for the establishment of such suitable machinery for planning in industry. Development Councils, one each for the important industries, consisting of the representatives of industry, labour and technical management and appointed by Government, would achieve this end. They would also serve as an effective link between the Central Board and the industries. In addition to advising Government, these Councils should perform the following functions:—

(1) recommend targets of production for securing fuller utilisation of installed capacity;

(2) suggest norms of efficiency with a view to eliminating waste, obtaining maximum production, improving quality and reducing cost;

(3) recommend measures for improving the working of the industry, particularly of the inefficient units; and

(4) help in devising a system of distribution and sales which would satisfy the consumer.

The Development Councils would thus be capable of dealing with all the important problems, which confront industry today. Obviously, each Development Council, in order to perform its functions satisfactorily, would need an adequate administrative and technical staff, which should be provided by Government. In course of time, the staff of these Councils would secure valuable knowledge regarding the administration of the different industries and their problems and as such would constitute a pool which could be drawn upon by the State for managerial assignments.

FINANCE FOR DEVELOPMENT

24. In 18 important industries, representing a large proportion of the present industrial investment and covering a fairly representative cross section of the whole industrial structure, which have been studied, the capital cost of expansion programmes roughly amounts to Rs. 125 crores. However, in some instances, plant and machinery needed for development have already been secured and in others, construction of works has also made substantial progress. To this extent, the actual investment that might be necessary for achieving the targets of production in these industries would be of a smaller order than the estimated figure. But against this must be set the needs of industries not yet studied. It may, therefore, be estimated that the investment, which would be necessary for achieving the targets of production in the entire private sector of industry, would be of the order of Rs. 125 crores.

During the last three years, private industries have been able to secure on an average Rs. 12 to 15 crores per annum from the capital market. Assuming that the investment market improves, industry would be able to raise Rs. 80 to 90 crores from this source over the next five years. The Industrial Finance Corporation, the Industrial Investment Corporation in Madras and similar institutions, which are likely to be set up in other States, should be expected to supplement these resources by Rs. 10 to 15 crores. Nevertheless, the needs of some of the important projects would remain unsatisfied. Where, for instance, the amount required by a single unit is very large, as in the case of steel or where, besides being large, the capital is not likely to yield any return for a long period as in the case of ship-building, adequate finance would be difficult to secure. In such cases, if the industries concerned are of basic importance, Government would have to provide the necessary assistance, directly or through some other agency like the Industrial Finance Corporation. The form in which such assistance is made available, that is, whether by participation in capital or by granting loans or through some other means, and its extent may be determined in the light of the circumstances of each case.

FINANCE FOR REPLACEMENT

25. The major problem of industrial finance is not so much the capital needed for new expansion as that needed for renovating and modernizing the plant and equipment of the existing industries. During the war, although the productive capacity of the industries was put to the maximum use, even normal replacements could not be made. In the meanwhile, there was a substantial rise—three to four times the pre-war level—in the prices of capital goods and the cost of meeting the arrears of wartime replacement increased in proportion. The accumulations in the depreciation fund, which are based on the original value of the plant, are very inadequate for the purpose and the other reserves have become locked up in working capital. The arrears of depreciation at the end of 1949-50 may be between Rs. 100 to 150 crores. As against this, the only source from which the industry can expect some assistance is the E.P.T. deposits amounting to Rs. 60 crores. But since a portion of these deposits is now being released to meet the needs of working capital, the amount that could be made available to cover arrears of depreciation would tend to be small unless the prices of raw materials register a significant decline. Because of the practical difficulties of securing the finance needed for wiping out the arrears of depreciation, it is inevitable that the process would be spread over a period of years. And, ultimately, industry would have to rely on its own resources for the purpose. The additional rates of depreciation allowance on new machinery, which are allowed under the Income Tax Act, should provide an incentive in this direction.

FOREIGN CAPITAL

26. When finance is the main handicap in the progress of industry, a free flow of foreign capital should naturally be welcome, particularly because it would ensure the supply of capital goods and technical know-how and make it possible to utilize foreign patented processes. From the point of view of industrial development, it would be best if foreign investments in the country take the form of equity capital.

27. By providing the necessary incentive to foreign investors, this form of capital would facilitate the flow of capital goods and bring in industrial know-how, technical personnel and business experience and organisation which would all be useful. The inflow of capital in this form, however, needs, besides the prospects of a fairly good return, certain assurances in regard to equality of treatment, facilities for transfer of profits, compensation in case of

nationalisation. etc. These have been expressly provided under the policy announced in April 1949. The main features of this policy are: —

(a) no discrimination would be made between foreign and Indian undertakings in the application of general industrial policy;

(b) reasonable facilities, consistent with foreign exchange position, would be given for the remittance of profits and repatriation of capital: and

(c) in case of nationalisation, fair and equitable compensation would be paid.

Since investment of foreign capital also necessitates the utilisation of indigenous resources, which are limited, it is desirable that such investment should take place in certain specific fields. Broadly, it might be stated that foreign investment should be permitted in spheres where new lines of production are to be developed or where special types of experience and technical skill are required or where the volume of domestic production is small in relation to the domestic demand and the indigenous industry is not likely to expand at a sufficiently rapid pace. The system of joint enterprises under which a number of foreign concerns have established new industries in the country in collaboration with Indian businessmen appears to be suitable for securing the employment of equity capital. Agreements for such joint participation between foreign and Indian concerns should be subject to the approval of the Government. The share of national capital in joint enterprises, the facilities for the training of Indians, the disclosure of patented processes to Indian associates. etc., are matters in respect of which no hard and fast rules need be prescribed.

Besides equity capital, it is also desirable to obtain fixed-interest capital through official or quasi-official institutions such as the International Bank for Reconstruction and Development and the Export-Import Bank in the U.S.A. The International Bank has already granted loans amounting to 62·5 million dollars to India, but these are for agricultural and power projects and for purchase of locomotives. The Bank should be invited to consider financing of specific industrial schemes of high priority requiring a large amount of foreign exchange for purchasing machinery and equipment.

CONTROL OF CAPITAL ISSUES

28. The total amount of capital which would be available for industrial investment being limited, it is necessary to exercise an effective control over capital issues, with a view to canalising funds in the desired fields. For this purpose, the control over capital issues, which has played a negative role so far, would have to be exercised with a positive objective. As a result of the Industries (Development and Control) Bill, this task would not be difficult since only those industries which receive the necessary licence would be entitled to raise capital in the market. There will have to be close coordination between the machinery for control of capital issues and the Central Industries Board. While according sanction for new issues, the order of priority laid down in para. 15 above should be followed and the capacity of the capital market should be taken into account. To make the control sufficiently comprehensive and effective, the exemption limit should, however, be lowered.

INDUSTRIAL MANAGEMENT

29. If the industrial development of the country is to proceed along sound lines, in addition to the measures suggested above, it is necessary to change the present system of industrial management in the private sector in important respects. The managing agency system under which industries are controlled and operated by independent firms has, in recent times, disclosed a number of features which are harmful to the growth of industry in future. The working of the managing agency system and the extent of the abuses which it has brought into prominence during the post-war period require to be carefully investigated before any drastic changes in the system are made. This is being done by the Company Law Committee at present. In the meanwhile, measures should be taken to prevent unscrupulous elements from making large investments in the shares of other concerns with a view to obtaining control of their management.

CHAPTER 12

SMALL SCALE INDUSTRIES

INTRODUCTION

SMALL SCALE industries have broadly to the distinguished from large scale or medium-sized industries according to the size, capital resources and labour force of the individual unit. Small scale industries may also be distinguished from cottage industries in that the former are mainly located in urban centres as separate establishments, while the latter are generally associated with agriculture and provide subsidiary employment in rural areas. Small scale industries can further be distinguished from cottage industries in that the former produce goods with partially or wholly mechanised equipment employing outside labour, while the latter involve operations mostly by hand and are carried on primarily with the help of the members of the family.

THE CASE FOR SMALL SCALE INDUSTRIES

2. The importance of small scale production in the predominantly agricultural economy of this country need hardly be stressed. Reference has already been made to the Directive Principle of State Policy in the Constitution of India, laying down that the operation of the economic system should not result in the concentration of wealth and means of production to the common detriment. What is essential for economic development on democratic lines is a diffusion of sources of power and instruments of production, which would release new springs of energy among the people and make them participate actively, in however small a sphere, in the functioning of a planned economy. It is now widely recognised that local autonomy and devolution of economic power are imperative in order to offset over-centralisation which saps initiative and enterprise. Small scale industries are also essential to provide subsidiary or alternative occupations and to utilise local raw materials or cater to local markets. As many of the small scale industries are urban and are owned and run by small proprietors who are familiar with the techniques of production and have limited resources of their own, they constitute an important source of employment to the middle classes.

3. The prevailing scarcity of capital for promoting large scale industries and the plentiful supply of labour are also factors which favour the development of small scale industries. Besides, the necessity of avoiding or reducing the cost of transport involved in long haulage of raw materials or finished products of centralised industries would also necessitate the setting up of small but efficient units of production at suitable locations. The low purchasing power of the mass of the people tends to restrict the market and the scale of production in certain spheres; and the needs of the people have therefore to be met in several directions by production on a small, and frequently, on a semi-mechanised scale. At the same time, the progress of cottage and small scale industries would itself open up local resources and expand local markets. Their development, has, therefore, to be considered not merely from the point of view of providing employment but also of building up local industries capable of expansion and of diversifying production and domestic market. Small units exist and thrive, even in highly industrialised countries side by side with large scale industries either on their own or in conjunction with larger units, the small units serving as feeders to the larger ones.

Fields in which Small Scale Industries have so far developed

4. During the war years, when imports were restricted, many small industries were established in the country which have subsequently developed, to a smaller or greater extent, under scarcity conditions created by the balance of payments difficulties. Among these may be mentioned small engineering industries, particularly in and around Calcutta, industries for the manufacture of textile accessories such as bobbins and pickers, the manufacture of bicycle components and accessories in East Punjab and West Bengal, and several other miscellaneous industries engaged in the production of buttons, pencils, fountain-pen ink, slate and slate pencils, preserved fruits, sago, etc. Among the older small scale industries which have withstood foreign competition and have been able to establish themselves are the silver thread and wire (jari) industry in Surat (Bombay), and the bangle industry in Firozabad (U.P.), and a few other centres. Again, in the art silk industry, a number of small units using power looms have developed in recent years in different parts of the country. Small re-rolling mills and foundries are also fairly widely spread throughout the country and are engaged in the manufacture of various types of engineering goods. In the steel industry in particular, the small scale units producing steel castings have a definite place in catering to local needs, especially in a country of vast distances involving transport both of scrap and of

finished or semi-finished goods. Similarly, in the field of textile manufacture, small spinning machines have been evolved. The possibilities of adopting such techniques and machines on a wide scale should be examined.

PROBLEMS OF SMALL SCALE INDUSTRIES

5. The main problems and difficulties of small scale industries may be stated to be:—

(a) competition from imported articles and from large scale units within the country;

(b) shortage of suitable raw materials;

(c) paucity of requisite finance;

(d) lack of machinery and equipment suited to small scale industries;

(e) inferior quality and standard of production; and

(f) absence of producers' organisations to put forward their case before the appropriate authorities.

These problems are capable of solution both by voluntary action on the part of industry and by suitable assistance from Government.

(a) *Competition.*—The list of imported articles should be carefully scrutinised with a view to ascertaining the lines of production which have already been developed by small scale industries in the country and which can be undertaken in future with necessary assistance and encouragement. In regard to competition between small scale industries and large scale industries within the country, such competition is likely to arise in respect of certain consumer goods. In such cases, the programme of production can be so devised as to provide for (i) definite quotas out of the consumption schedule of the country being set apart for small scale industries in respect of those goods which can be had from both categories of industries; (ii) production of the various parts of an article by the small scale units in a particular industry, the parts being assembled in large scale factories; and (iii) the establishment of new units in a particular line of production being allowed by small units instead of by large scale units.

(b) *Raw Materials.*—In view of the fact that small scale industries have not yet organised themselves into well-knit associations for the promotion of mutual interests, the Central and State Governments should see that necessary quotas of raw materials, such as pig iron, steel bars and billets, yarn, dyes and chemicals, machinery and equipment, as the case may be, are allocated to small scale industries. This applies equally to such raw materials as have to be imported and are required by the small scale industries.

(c) *Finance.*—At present, financial assistance to small scale industries is rendered by State Governments under the State Aid to Industries Acts or Rules for Grants-in-Aid and similar regulations. The establishment of Industrial Finance Corporations in the States would provide a channel for assistance to small scale industries. It is desirable that, wherever conditions permit, such Corporations should be set up, whose primary aim should be to assist medium-sized and small scale industries.

(d) *Machinery and Equipment.*—In view of the limited capital resources of the small entrepreneur, there is urgent need for the manufacture within the country of machinery suited to small-sized units for the purpose of increasing production and reducing costs. One way of bringing out latent talent and inventive faculty would be to establish central workshops in suitable localities, if necessary, under Government auspices and, where possible, in co-operation with large engineering establishments.

(e) *Standards and Quality.*—It must be recognised that many of the small industries which were started during the war in conditions of scarcity took advantage of a seller's market and have not adhered to the requisite standards in their production. Such industries can eventually survive, not through continuous spoon-feeding but on the basis of their efficiency. It is, therefore, essential to introduce standardisation, adopt new working methods, utilise better tools and techniques, train labour and improve equipment and organisation. The central workshops whose establishment has been suggested in (d) above, should go a long way in achieving these objectives. The importance of applying technology in the development of small scale industries should be fully recognised. Research in design and techniques is no less necessary for small scale than for larger scale industries, and various technical problems thrown up by such industries should receive the prompt and careful attention of national laboratories and institutes.

(f) *Organisations of Small Scale Producers.*—The inherent weakness of the existing small scale industries is the absence of well-organised associations, representing such industries, capable of placing their case before the proper authorities in regard to their difficulties and problems. It is, therefore, necessary to organise associations of small scale manufacturers. Eventually, such small scale units depend upon initiative and enterprise which has to be encouraged and facilities such as power and communications should be made available to them. These associations of small scale industries can assist the constituent units, in consultation with the Departments of Industries in the States and the Development Wing of the Ministry of Commerce and Industry at the Centre, in respect of the following matters: supply of raw materials and components; supply of modern samples and designs, supply of modern tools and implements, including those needed for finishing processes; facilities for the training of artisans and their children in the manipulation and use of up-to-date machinery and equipment; technical assistance for the improvement of manufacturing processes; quality control; credit facilities, both for the purchase of raw materials and the marketing of their finished products; market research, etc.

NEED FOR A SURVEY OF SMALL SCALE INDUSTRIES

6. The ill-organised state of small scale industries is one of the main reasons for the absence of reliable information in regard to the total capital invested or the total number of workers employed in such industries at present. In fact, a detailed survey has not so far been undertaken to ascertain the conditions and problems of small scale industries as such, and it is essential that this work should be undertaken without delay by the Ministry of Commerce and Industry in close co-operation with the Departments of Industries in the various States. Technical assistance, where necessary, could be obtained from international agencies for this purpose.

LINES OF FUTURE DEVELOPMENT

7. It cannot be gainsaid that the action hitherto taken for the promotion of small scale and cottage industries has been inadequate and haphazard. It is essential that Departments of Industries in the various States should take an active and continuous interest in the needs and problems of small scale industries and should render positive assistance in financing, marketing, technical training and advice. Specific schemes should be worked out for the development of existing small scale industries and for the establishment of new

ones in selected centres. In the U.K., the establishment of trading estates has been a fruitful experiment, and efforts should be made by State Governments to see whether such estates under suitable conditions can be established in favourable localities. Such trading estates, for example, could be promoted as part of the programme for rehabilitation of displaced persons, and loans for rehabilitation could be linked up with a programme of development of small scale industries. Such estates might offer inducement to private capital for industrial investment on a small scale. Investigations could be begun in respect of selection of sites for the establishment of trading estates, the types of industries which should be diverted to these estates, the probable investment that would be necessary, and other factors bearing on development of small scale industrial enterprise. In this development, the provision of adequate and cheap power as well as of transport facilities is essential. The development of the multi-purpose projects would secure increasing supplies of power and it is necessary to work out a co-ordinated scheme of development of small scale industries in such areas where power would be available. Some study has been made of this question in different areas, but it is essential to have a thorough survey and a programme laid down which would not only utilise available power but would also fulfil social objectives of such large scale projects.

INTEGRATED PROGRAMME OF PRODUCTION BY SMALL SCALE AND LARGE SCALE INDUSTRIES

8. Small scale industries have in many countries, particularly in Japan, helped in the expansion of production by supplying to large scale units components which are required for the final product. In many cases, the initiative has come from the larger units themselves which found that the components were such that their manufacture could be undertaken more economically either by hand-labour or in small units in neighbouring areas rather than in the large factory itself. In fact, an integrated programme of such development of small scale and large scale industries has been worked out in Japan where even highly developed industries are fed in respect of components and accessories by small units. In this country, the tendency for the large scale industries has been to manufacture most of the components in their own factories. This has been due to several factors, such as the absence of ancillary industries and the desire of the manufacturers to be self-dependent; but this has led to increase in the aggregate cost of production. There are, however, some industries where component parts are manufactured by small scale industries, a conspicuous example of which is the bicycle industry to which reference has already been

made. This principle can also apply in a larger degree to the automobile industry. The Expert Committee on the Automobile Industry, appointed by the Government of India, in its report (1951), has made an important recommendation in this behalf, namely, that small manufacturers of automobile components should be persuaded to work in conjunction with the larger manufacturers who can provide the necessary assistance to improve their products. It is suggested that, wherever a large scale industrial unit is to be set up, the Department of Industries in the State concerned should immediately investigate, in consultation with the promoters of the large scale scheme, the racticability of assigning specific jobs as mentioned above. The Development Wing of the Ministry of Commerce and Industry should also render assistance in working out practical schemes for this purpose. Financial assistance either from the Central or the State Governments can be linked up with such schemes. It is also essential to examine whether and in what manner processes of existing industries can be decentralised, without detrimental effects on production. This study has to be made industry by industry in different regions. The scope of such decentralisation may be limited because of technical and economic difficulties. But it should be recognised that small industries, wherever possible, are linked up with large scale production in such a way that they develop along with the large scale units and contribute to aggregate production. The production plan for large and small scale industries should be conceived and worked out as an integral one in which cottage industries, small scale industry and large scale industry would all contribute to augment production and diversify the economy of the country.

CHAPTER 13

TRANSPORT AND COMMUNICATIONS

INTRODUCTION

THE important role of transport as an integral part of the economic system is widely recognised. Cheap and efficient transport is indispensable for the economic development of the country. Different modes of transport, such as railways, inland waterways, coastal and overseas. shipping and civil aviation all contribute to such development in a variety of ways. In an under-developed country of vast distances like India, with a majority of its population dependent on agriculture and with industries in various stages of development, all forms of transport exist side by side—from the primitive bullock-cart to a modern constellation.

2. Plans for different forms of transport cannot be considered in isolation. They must fulfil the fundamental objectives of matching transport development with various industrial and agricultural plans and they must be so built up that one form of transport is correlated with another and ensures its development, each in its sphere of effective service. During the last one hundred years, greater emphasis was laid on the development of railways owing to administrative and strategic reasons with the result that roads and waterways came to be neglected. Another reason for the unbalanced development of the transport system in the past was the division of functions in regard to different types of transport as between the Centre and the States.

3. The conception that different forms of transport are parts of an integral system has developed gradually. During the last war, for example, alternative forms of transport of goods and men were needed to relieve the congestion on railways. Moreover, the degree of decentralisation of industries will depend, to a large extent, upon the means of transport of both raw materials and finished products; and from this point of view the development of roads, waterways and railways should occupy an important place in any plan for increasing agricultural and industrial production. The programme of railways during the next five years is primarily one of rehabilitation. The road plan which has been handicapped by

financial stringency has to be a co-ordinated one. India is also favourably situated in respect of navigable rivers. As a first step in the development of inland waterways, Government have decided to establish the Ganga Water Transport Board for developing navigation on the river Ganga. Coastal shipping can supplement railway transport. The problem of co-ordination of these two systems raises several important issues such as the correlation of freight rates, establishment of joint services implied in through routes, and joint rates, and control of competition to prevent each agency from attempting to invade the field of operation in which the other agency can provide a better service or perform a given service at a lower cost. Fundamentally, the problem is to ensure, when normal conditions return, that there is sufficiency of suitable traffic and that both these forms of transport are able to pay their way, without undue burden on the public. Civil aviation, although a more recent form of transport in this country, has developed rapidly during the post-war years and presents problems of rationalisation and co-ordination with railways which also deserve examination. It is necessary that all central plans for the development of transport should be reviewed by a central body in the interest of over-all co-ordination.

4. The Plan makes provision for the development of railways, roads, shipping and civil aviation as briefly outlined in the following paragraphs.

RAILWAYS

5. The programme for railways for the next five years is intended mainly to bring about a degree of operating efficiency which will compare favourably with pre-war standards. In the last two decades, with the exception of a few years, the railways have not been able to maintain their normal expenditure on maintenance and renewals. During the depression, the problem was mainly financial, as the prevailing economic conditions led to a decline in the revenues of the railways and forced them to reduce their capital outlay to the minimum. In the period of the War as well as in the post-war years, however, the problem has been two-fold: shortage in supplies of equipment and increase in traffic. This combination of circumstances has reacted adversely on the operating efficiency of railways and left them with considerable arrears.

6. The magnitude of the arrears in maintenance and replacement expenditure will be evident from the fact that about one-third of the locomotives and about one-fourth of the coaches and

goods wagons in service in 1950 were over-age. Considerable renewals in track are necessary as the arrears in this respect have already compelled the imposition of speed restrictions in several important sections of the railways.

7. The large increase in traffic has aggravated the problem created by the arrears in maintenance and replacement expenditure. Passenger traffic has increased to nearly 2½ times the pre-war level. If the passenger accommodation enjoyed by the public in 1938-39 is taken as a standard, even doubling the existing stock of passenger carriages will not be sufficient to provide the required accommodation for the existing traffic. The efficiency in wagon capacity, judged in terms of the present goods traffic, is about one-seventh of the present effective capacity. A measure of the inadequacy of wagon capacity is afforded by the inability of the railways to accept the traffic offering: the volume of traffic awaiting to be moved has increased recently from about 58,000 wagon loads in the middle of 1950 to over 106,000 wagon loads by the middle of 1951.

8. In addition, lines dismantled during the war have to be restored; improvements in signalling and inter-locking have to be made in the interests of safety; better passenger amenities have to be provided, and measures taken for the welfare of "essential" staff.

9. These items of expenditure would absorb most of the resources earmarked for the railways in the first part of the Plan (i.e., Rs. 200 crores in addition to the estimated expenditure of Rs. 150 crores arising from the depreciation of assets in the period of the Plan), and would leave very little for expansion. With the additional Rs. 100 crores provided in the second part of the Plan it will be possible to undertake some of the more urgent schemes of expansion. Given the financial limitations, and in view of the large demands the rehabilitation programme will itself make on the available technical personnel, a more ambitious programme of railway expansion may have to wait till the next stage of development.

SHIPPING

10. The Shipping Policy Committee (1947) had recommended that the target for the subsequent five to seven years should be a total tonnage of 2 millions and had suggested a breakdown of this target for different categories of trades. This target has not been achieved, although the total Indian owned registered tonnage,

which was 2,45,000 before the war and 1,27,088 in 1946, increased to 3,77,500 by the end of 1950. There are at present 71 ships with a gross registered tonnage of 2,05,717 on the Indian coast. More than half the coastal fleet is over 20 years of age. It is essential, however, that, in order to implement the programme of coastal reservation, to replace obsolete tonnage on the coast and ensure fuller participation in the overseas trade of the country, Indian tonnage should be expanded. Owing to the condition of the investment market during the last three years and the fact that the Indian shipping companies have not been able to build up the necessary reserves, they need financial assistance for acquiring tonnage. The importance of shipping in a country with a large coast line and a large maritime trade need hardly be stressed; the present food situation has served to emphasise the vital role which shipping plays in the economic life of the country, including its balance of payments. Moreover, a mercantile marine is a second line of defence in times of crisis and serves not only as an auxiliary and a training ground for the navy but is also indispensable for the carriage of essential supplies during wartime. Government have already decided to reserve the coastal trade of India to Indian vessels, a public demand made nearly 25 years ago. They have also been assisting the shipyard at Visakapatnam which indirectly serves to strengthen the mercantile marine. In order, however, to expand Indian tonnage, provision has been made in the first part of the Plan for Rs. 14·9 crores over a period of five years. The programme as outlined after consultation with the Ministry of Transport provides for the acquisition of about 80,000 tons for the coastal trade with the help of Government loans amounting to about Rs. 4 crores, and about 1,25,000 tons for the overseas trade with loans amounting to Rs. 6½ crores. It also provides for investment by Government of about Rs. 4½ crores to enable the Eastern Shipping Corporation, which was set up for assisting Indian shipping to participate in overseas trade, to acquire 60,000 additional tons of shipping. In view of the prevailing difficulty in purchasing ships in the open market or of building them in foreign shipyards, Government should assist Indian shipping companies in securing suitable tonnage including tankers. Assistance might also be possible from the International Bank for Reconstruction and Development for acquisition of tonnage specially in view of the importance of shipping for the transport of food. The programme of expansion of Indian tonnage has to be linked up with the scheme of development of the shipyard at Visakapatnam, so that its capacity is fully utilised.

11. Since Government would be extending financial assistance to shipping companies in order to expand their tonnage, they

should maintain a continuous watch with a view to ensuring that the coastal rates of freight and passenger fares are reasonable, that the companies plough back their profits into the industry for purposes of replacement and renovation and that the management is efficient and progressive.

12. It is necessary to point out that this provision of Rs. 14·9 crores is in addition to Rs. 12 crores provided under the head 'Large Scale Industries' for assisting and acquiring the shipyard at Visakapatnam and which also go to strengthen the Indian mercantile marine. Provision has also been made for expenditure on marine engineering and merchant navy-rating training schemes which are designed to secure the necessary pool of officers, engineers and crew for Indian shipping. All these measures would help in realising the objective of a fairly adequate and balanced national mercantile marine.

CIVIL AVIATION

13. India is favourably situated for the development of air transport, both internal and international. In the internal field, with her vast distances and good flying conditions during the greater part of the year, there is considerable scope for this mode of transport. Almost all the important administrative, industrial and commercial centres of the country are at present connected by air. The night air services which connect the four principal cities form an important part of the airline net-work and fill a long-felt need. There is, however, room for more intensive operation on the existing main routes as well as extension to less important towns. In the international field, India occupies geographically a most significant position, as she is astride the world air routes between the East and the West. This throws upon the Government of this country the obligation to maintain ground services of certain prescribed standards for the use of these international air services. India, for her part, is operating, with a considerable measure of success, international services to the West and the East. In emergencies, civil air transport can play a vital part. The part played by air services in refugee evacuation after the Partition and in West Bengal and Assam in 1949-50, and in relief and other operations in Assam after the earthquake and floods shows the importance of this form of transport. Finally, there is the defence aspect of civil aviation. All civil aviation (equipment, personnel and organisation) is a reserve for the Defence Services, which could be mobilised quickly and made available during an emergency. For all these reasons, India's future plans of development have to take

into account civil aviation. Roughly, the capital expenditure on Civil Aviation development until the end of the financial year 1950-51 was of the order of Rs. 10 crores. The expenditure was for the provision of aerodrome organisation, including runways, hangars, passenger buildings, lighting, etc; communication organisation which provides the radio aids for air navigation; inspection organisation which relates to the supervision and check of airworthiness of aircraft and other technical equipment and competence of personnel: and training organisation which includes the Civil Aviation Training Centre at Allahabad.

14. As part of their post-war plans of development, Government had drawn up a plan for developing, controlling and regulating air transport. The main features of this plan were:—

(a) the development and operation of air transport services would be left to private commercial organisations;

(b) the operation of scheduled air services would be subject to licensing by a body called the Air Transport Licensing Board to be set up for the purpose;

(c) all the main air services in India should be operated by about four companies; and

(d) Government might give financial assistance to the operating companies in specific cases.

After the end of the War, a large number of companies were floated for the operation of air services. The wartime boom in air traffic had created an impression that commercial air transport operation was a very profitable enterprise, especially as war surplus stocks made available certain types of air-craft at very low prices. These conditions gave an impetus to the floatation of aviation companies and a number of applications were made to the Air Transport Licensing Board for licences for the operation of internal air services. By the end of 1949, nine companies had been granted licences for the operation of air services. It soon became apparent, however, that the financial condition of most of the companies was not reassuring, and Government appointed the Air Transport Inquiry Committee to investigate the condition of the companies and to make recommendations to Government for putting the air transport industry on a firm basis and for developing commercial air transport on sound lines. From the report of this Committee, it is evident that the financial position of the industry as a whole is far from satisfactory and that the main reason for this is that the number of operating units is larger than that required to conduct the available volume of air transport business on an economic basis. The Committee has made recommendations for improving the existing position and Government are taking steps to give effect to most of these recommendations.

15. The plan for the development of air transport during the next five years may be considered in two stages, namely, for the first two years of 1951-52 and 1952-53, and for the next three years 1953-54 to 1955-56. For the first two years, the amount of capital expenditure allotted is Rs. 1,85 lakhs per annum. This is made up of about Rs. 1,50 lakhs for works and the rest for equipment. For the second period of three years, the total allotment made is about Rs. 9,67 lakhs. The expenditure will have to be properly phased during the period, the amount spent during the last year being in the neighbourhood of Rs. 4,00 lakhs. About 70 per cent. of the allotment is in respect of works, the remaining being for several items of technical equipment.

16. All the internal air transport operations in India are at present carried out with Dakotas and Vikings. It would be necessary for the operating companies to replace these aircraft by more modern machines before the end of the planning period. In the international field also, it might be necessary for the Air India International to go in for jet types of aircraft. The additional capital expenditure estimated for this purpose is of the order of Rs. 5 crores. While the measures which have been and are proposed to be taken by Government for the re-organisation of the air transport industry, are expected to result in an improvement in the financial conditions of the air companies, it might be necessary for Government to assist the air companies in regard to the replacement of their fleet. Such assistance may be in the form of interest-bearing loans, or through Government participation in the share capital of the company concerned or through any other suitable method. The Plan provides for this purpose a sum of Rs. 2·5 crores during 1953-54 to 1955-56, the terms on which assistance is to be given being determined at the appropriate stage.

Roads

17. Roads are a service for all forms of development, whether of agriculture, trade or industry. In the development of roads, a national conception is necessary not only because of their strategic importance but also because of the need for co-ordination between

different types of roads. This was recognised in the Nagpur Plan which emphasised that schemes already developed by the Centre and the States should be based on the consideration of the road system of India as an integral whole; and that development should be balanced as between different categories of roads and should proceed in a planned sequence, having regard to the requirements of traffic. That plan visualised the development of a total mileage of hard-surface roads from about 66,400 miles to 1,20,600 miles; of low type roads from about 1,12,000 to 2,07,500 miles and also the improvement of the existing roads, wherever necessary, so that the roads would cater for the needs anticipated for the next 20 years. The objective underlying the Nagpur Plan was that no village in a well-developed agricultural area should remain more than 5 miles from a main road, while in a non-agricultural area no village should remain more than 20 miles from a main road. It was a fundamental of this programme that no road should be considered by itself, but as part of a network. The expenditure target of this 10-year plan was of the order of Rs. 300 crores. Owing, however, to shortage of materials, scarcity of trained men and, above all, to financial stringency, the programme had to be drastically reduced. Some of the national highway schemes have not been sanctioned, others which were approved have had to be held in abeyance and expenditure on many of the works in progress has had to be slowed down. The expenditure incurred on road development during the three years ending 31st March 1950, in Part A States was Rs. 22,83·8 lakhs, in Part B States Rs. 3,70·2 lakhs and in Part C States Rs. 57·2 lakhs, making a total of Rs. 27,11·2 lakhs for the country as a whole. Against the Nagpur Plan target of Rs. 611 crores for roads other than national highways, this expenditure of Rs. 27·11 crores represents a little less than 5 per cent. progress in three years out of ten. In view of the paucity of funds, it is evident that progress in road development cannot take place at the rate envisaged in the Nagpur Plan, but it is important that it should be steady, balanced and continuous.

18. Priority in the development of roads has to be determined in relation to plans of development in other spheres in the light of national and local resources and needs. Roads which assist production, and especially agricultural production, should have a high priority in our existing conditions. This has been recognised by some of the States, such as U. P., where their development forms a part of schemes of rural reconstruction. It is evident that such roads as are feeders to railways or which relieve congestion at certain junctions and help to open out the country, have to be given preference. Priorities within the State have to be determined by

the State itself. And it is evident that such priority would tend to differ in different States. In West Bengal, for instance, owing to the partition of the province, the construction of roads has a particularly high priority. Many of the previous roads were from east to west while now they have to connect the north and the south, without which there are certain "pockets" which cannot be easily reached and whose surplus products cannot be made available to other parts of the State. Similarly, in order to provide customs posts and watch and ward service over the frontier with Pakistan, roads have to be constructed.

19. The total length of provisional national highways in the country is about 13,400 miles. Out of this, about 11,800 miles of roads exist at present and there are missing links of about 1,600 miles. The Five Year Plan provides for taking in hand the construction of 750 miles of road out of these missing links. At the end of five years, it is expected that about 400 miles of these new roads will be completed and about half the work on a length of 350 miles will have been done. There are about 112 missing bridges (costing about Rs. 5 lakhs or more each) on the national highway system. The Five Year Plan provides for taking in hand the construction of 60 of these major bridges. Out of these, roughly 40 are expected to be completed in five years and the remaining 20 will be in various stages of progress at the end of the period. Out of the existing length of 11,800 miles of provisional national highways, 4,300 miles have got an improved surface and the length requiring upgrading is about 7,500 miles. The Five Year Plan provides for the upgrading of approximately 2,200 miles of road surface. Many of the existing bridges are not capable of carrying heavy loads and will require reconstruction. This work, however, will be taken up only after all road lengths and bridges are provided at the missing links and unbridged crossings. It will, therefore, be seen that the order of priority in respect of national highways is (a) provision of missing road links which is of primary importance; (b) improvement of road surfaces to meet the present demand of traffic; and (c) reconstruction of old bridges for making them capable of taking modern loads.

20. State highways, whose programme is determined by the States themselves, are linked with national highways and with them constitute a single road system. At present, the States finance the construction of roads from (a) the Central Road Fund and (b) State revenues. The Roads Organisation at the Centre is consulted by States Governments in connection with road programmes.

With a view to ensuring continuous and balanced road development in the States, it would be useful if road programmes in the States were drawn up with the help of Advisory Road Boards.

21. As regards village roads, the broad aim should be to connect all villages of a certain size and population with marketing centres and district headquarters. The absence of village roads is a serious drawback in the system of communications. State Governments should pay special attention to the construction and maintenance of these roads and for this purpose enlist the cooperation of villagers. In certain States, village roads are, in fact, being developed with the active cooperation of the villagers themselves who contribute one-third of the cost of construction, the balance of two-thirds, including materials, equipment, etc., being contributed by Government. There is considerable scope for development of village roads on a cooperative basis by mobilising the local population for local projects.

22. The principal difficulty in the development of roads in recent years has been the paucity of finance. A certain continuity in the supply of funds is essential if wasteful expenditure is to be avoided and programmes, however modestly they be drawn up, are to be pursued without interruption.

23. A sum of Rs. 23 crores over a period of five years has been provided in the Central Government Plan for the development of roads. The provision required for missing bridges and road links on the routes to which the Roads Organisation has given a high priority is approximately Rs. 29 crores, while Rs. 6 crores have been provided for replacing dangerous bridges and for widening of roads and upgrading of road surfaces. In fact, works worth Rs. 34 crores will be in progress during the five-year period, out of which provision has been made for Rs. 23 crores, which is the amount that is expected to be spent during the period of the Plan. The total provision for road development in the plans of the States is Rs. 94·11 crores.

ROAD TRANSPORT

24. Some of the States own and operate road transport services and also propose to extend them. The provision for road transport in the Plan comes to Rs. 5·6 crores for Part A States, Rs. 1·6 crores for Part B States and Rs. 20 lakhs for Part C States making a total of Rs. 7·4 crores for the country during the period of five years. Of

these, Bombay and U. P. Governments have already a well-developed road transport organisation, and Bombay operates its services through a State Road Transport Corporation. It is essential that, wherever road transport services are run by the States, a Corporation should be formed for the purpose, as that would provide the necessary autonomy and would lead to more efficient administration. It is also necessary that the vehicles used by the State Transport Services should be standardised and their programme of replacement or expansion co-ordinated with the development of the automobile industry within the country. One of the principal difficulties of the road transport organisation has been the paucity of technical men and all possible steps should be taken for training personnel within the country or abroad under suitable technical training schemes. It is also important to provide for automobile workshops with a view to ensuring proper maintenance and repair services from the point of view of efficient transport.

CHAPTER 14

LABOUR AND INDUSTRIAL RELATIONS

THE working class performs functions vital to the maintenance of the community's economic life. Certain rights and obligations are associated with this distinctive role. The worker should at least have the means and facilities to keep himself in a state of health and efficiency. This is primarily a question of adequate nutrition and suitable housing conditions. The working conditions should be such as to safeguard his health and protect him against occupational hazards. The work place should provide reasonable amenities for his essential needs. The worker should also be equipped with the necessary technical training and a certain level of general education. Having placed his assets—labour and skill—at the disposal of the community, he should be assured of a reasonable measure of security against the various natural and other risks to which he is exposed. In his relations with the management, it is necessary that he should be treated with consideration. When he feels he cannot get a fair deal from his employer, he should have access to an impartial machinery set up for the purpose. The worker must be free to organize and to take lawful action in furtherance of his rights and interests. The community has recognised most of these rights, which have found place in the Constitution. While legislative and other measures are inevitable to an extent to meet the peculiar difficulties of the industrial workers, any tendency to treat them as a class standing apart would not be healthy. The workers must, of course, as members of the community, have the full benefit of the social services and facilities available to any other section. Appropriate measures must be taken to remove their special handicaps.

2. The process of improvement of the economic conditions of the working class, though actively encouraged by the State in the post-war period, has been seriously hampered by the rising price level and the failure of industry to renovate and modernize plant and rationalize management in many cases. Living conditions, particularly in respect of housing accommodation in most of the industrial areas, have deteriorated. Strenuous efforts have been made by the Ministry of Labour during the last five years to promote the well-being of the working class in all these directions on the basis of a planned programme of legislative and administrative action, a major part of which has been successfully realised. Implementation of some of the measures, however, has not been effected for a

variety of reasons. Trade unionism has experienced a remarkable growth during these years, but the progress has not been even.

3. On the side of labour, there is an imperfect realization of the fact that in an undeveloped economy it cannot build for itself a better life except on the foundations of a higher level of productivity to which it has itself to make a substantial contribution. Labour will be serving itself best by the observance of greater regularity, discipline and meticulous care in the discharge of its duties. To ensure this, much greater attention has to be paid to the spread of literacy and a healthy development of trade unions so that workers are not exposed to exploitation and can act with a growing sense of responsibility. It is also essential that workers must be satisfied that they are having a fair deal.

4. Industrial relations, wages, working conditions, employment and training and productivity are among the important aspects of the labour problem which need consideration.

INDUSTRIAL RELATIONS

5. Peace in industry is essential for the realisation of the targets of the Plan in the industrial sector. This would be assured to a large extent if it were possible for management and labour to come to an agreement regarding the principles which should govern industrial relations. To this end we have worked out certain proposals in consultation with the Ministries of Labour and Commerce and Industry on the basis of which agreed conclusions have been reached in the Industries Development Committee composed of representative employers and leaders of the principal workers' organisations in the country.

6. The efficacy of any scheme of industrial relations depends ultimately on how far it can help the working class to improve its status and advance towards a better life. The employer-worker relationship has also to be conceived of as a partnership in a constructive endeavour to promote the satisfaction of the economic needs of the community in the best possible manner. The dignity of labour and the vital role of the worker in such partnership must be recognized. In dealing with the worker it has not only to be borne in mind that his energy and skill are the most precious assets of the nation but also that his personality is an object of care and respect and of equal significance and worth with that of any other element in the community.

7. The main features of the agreed approach to the question of industrial relations are set out below:—

(a) *The Right to Strike.*—In a system functioning on the basis of competition, private monopoly or private profit the workers' right to have recourse to peaceful direct action for the defence of their rights and the improvement of their conditions cannot be denied and should not be unduly curtailed. It is generally accepted, however, that in an emergency and in the case of services essential to the safety and well-being of the community, recourse to strike or lock-out may be suspended or withheld on the condition that in all such cases provision is made for just settlement of the claims of the parties.

In an economy, which is organised for planned production and distribution, aiming at the realisation of social justice and welfare of the masses, strikes and lockouts have no place. India is moving in this direction. It is also at present passing through a period of economic and political emergency. Taking the period of the next few years, the regulation of industrial relations in the country has to be based on these two considerations and it is incumbent on the State to arm itself with legal powers to refer disputes for settlement by arbitration or adjudication, if efforts to reach an agreement by other means fail. The restrictive aspects of any existing or future labour legislation must be judged in the light of these considerations.

(b) *Avoidance of Disputes.*—The stress of the administration as well as the efforts of parties should, however, be on avoidance of disputes and on securing internal settlement.

In order to avoid needless friction and disputes between employers and workers, it is necessary to lay down in concrete and specific terms the duties and responsibilities of both sides. A worker should know what is expected of him in the particular occupation or capacity in which he is employed in the establishment. He should also know the privileges which are due to him, in relation to the performance of his duties.

Elected representatives of workers function as shop-stewards in some establishmets at present. This agency should be developed and fully employed for redressing the grievances of workers in their individual and collective capacity.

An employer should, in consultation with the workers, lay down clearly the manner in which any worker or a group of workers, individually or collectively through their representatives, may approach authorities at different levels in the plant in respect of various types of grievances.

The workers should be apprised in advance, in all feasible cases, of any contemplated change which may alter the *status quo* relating to their conditions and interests. The workers must similarly indicate their desire for any change in the existing conditions.

Employers in industrial establishments should define with sufficient precision the conditions of employment under them by means of standing orders. Any differences between the parties regarding the terms of the standing orders should be resolved by arbitration.

The personnel officers on the staff, usually designated as labour or labour-welfare officers, have a special responsibility for the avoidance of disputes and creating mutual good will and understanding. This responsibility is not being discharged satisfactorily in many cases.

(c) *Joint Consultation.*—Industrial relations have to be so developed that the worker's fitness to understand and carry out his responsibility grows and he is equipped to take an increasing share in the working of industry. There should be the closest collaboration through consultative committees at all levels between employers and workers for the purpose of increasing production, improving quality, reducing costs and eliminating waste.

(d) *Works Committees.*—The Works Committee for the settlement of differences on the spot between the workers and the management is the keystone of the structure of industrial relations as conceived by us. Joint committees should also be set up for a centre and for the industry as a whole to tackle questions of wider importance. When a new institution with such significance has to be developed, active steps must be taken to foster it and to create conditions conducive to its healthy growth.

The personnel of the works committees on the side of the workers should invariably be chosen by the trade union enjoying a representative character and having the backing of the majority of the workers in a unit. Where such a union is not available, the workers should themselves elect their representatives on works committees.

(e) *Collective Bargaining.*—For the success of collective bargaining, it is essential that there should be a single bargaining agent over as large an area of industry as possible and uniform conditions should be secured in at least all the establishments in one centre. Where no trade union has built up the requisite strength to obtain a representative character, the largest union should have the right to function in respect of all establishments in which it has a majority of the workers as its members. Separate unions for industrial establishments in the same industry in a local area are inimical to the growth of a strong and healthy trade union and their existence may be justified only in very exceptional circumstances. Provision has also to be made for the direct election of representatives of workers from among themselves, where no trade union exists or is able to secure the right to represent them.

(f) *Conciliation and Arbitration.*—The State has to step in with an offer of conciliation when the parties fail to reach an agreement and the dispute continues. In all such disputes conciliation should be resorted to except when there is a voluntary submission for arbitration or a direct approach to a tribunal or court is permitted or prescribed. The conciliation officer has an important role for which he should be adequately equipped and trained.

The machinery and procedure relating to compulsory arbitration and adjudication of disputes should be so designed as to secure the essence of a fair settlement based on the principles of natural and social justice, with the minimum expenditure of time and money. Provisions in this regard should be framed on the following principles:

(i) Legal technicalities and formalities of procedure should be reduced to the minimum, the relevant facts and figures should be furnished quickly and attention should be focussed on the material points at issue;

(ii) The machinery and procedure should be adapted to the varying needs. Every dispute should be taken up for final disposal directly at a level suited to the nature and importance of the case. Relatively simple or less important matters should not entail a disproportionate expenditure of time and attention;

(iii) Selection, recruitment and training of the personnel of the courts or tribunals should be carried out with a view to securing competent disposal of the questions coming up before them and the requisite technical help should be provided so as to obtain speedy settlement and avoid miscarriage of justice;

(iv) There should be no appeal from decisions of an industrial court or tribunal, barring the very exceptional case of a decision which may be found to be perverse, or against the principles of natural justice; and

(v) The provisions of law should be adequate for securing strict and prompt compliance with the terms of any award or decision.

Adequate machinery should be provided for arriving at impartial decisions regarding disputes which are found incapable of settlement by conciliation. It is necessary to empower labour courts to take cognizance and dispose of any complaints relating to working conditions, health, safety, welfare and kindred matters. Reference of disputes relating to such crucial questions as wages, hours, rationalisation schemes, should, as far as possible, be left to be settled by conciliation or voluntary arbitration. The State may, however, have to refer such disputes for compulsory arbitration in the absence of a voluntary submission.

The work of the industrial and labour courts suffers in quality and speed of disposal, because the necessary information is not readily available. The State can itself fill the gap, in part, by preparing in advance the factual and statistical material which, in the light of experience, is found to have a bearing on the various types of cases which come before the courts. The State should have the power to require any employer or employers generally to maintain and furnish data relating to the plant, manufacture, industrial transactions and dealings, which might be needed for the settlement of industrial disputes.

(g) *Norms and Standards.*—The resolution on Industrial Truce, adopted at the Industries Conference in December 1947, visualises the establishment of a machinery for the determination of 'norms' and standards which may govern the mutual relations and dealings between the employers and workers and settlement of industrial disputes. The most suitable machinery for the purpose can only be a tripartite body consisting of representatives of employers, workers and Government. It may be expected that agreement will be reached on many contentious matters but, where this is not possible, the Government may, with such expert assistance and judicial advice as is needed, itself arrive at decisions. These agreements or decisions may, according to the nature of the case, be embodied in legislation or issued as directives binding on the courts or the tribunals.

WAGES

8. Any upward movement of wages, at this juncture, will further jeopardize the economic stability of the country, if it is reflected in costs of production and consequently raises the price of the product. For the workers too, such gains will prove illusory because in all likelihood they will soon be cancelled by a rise in the general price level, and in the long run the volume of employment may be adversely affected. Such an increase in wages should, therefore, be avoided, except to remove anomalies or where the existing rates are abnormally low. Government should be given a period of respite in which to take concerted action for arresting a further rise in prices. To make this course acceptable to the working class, other measures will have to be taken, including restrictions on the remuneration of management, the distribution of profits and the issue of bonus shares. The whole system of industrial administration will also have to be examined with a view to effecting the necessary reform.

9. For most workers, earnings are far removed from the living wage standard. In terms of real wages, workers have lost ground in varying degrees. They may legitimately expect an early restoration of their pre-war standard of living. This and a further advance to living wage can be achieved only through a fall in prices, an increase in the productivity of labour or an improvement in the capacity of industries to pay, brought about through various measures of rationalization of industry, as well as the renewal or modernisation of plant. Such regulation of industry as may be called for to ensure the success of this policy has been separately proposed.

10. Certain broad principles which may help in the regulation of wages have emerged and have, for the most part, been embodied in the existing and proposed legislation on the subject. They still do not form, however, an adequate practical basis for a uniform policy in determining wage rates and effecting wage adjustments. The tripartite machinery, visualised in the section on Industrial Relations, should evolve in as precise terms as practicable, the 'norms' and standards, which should guide wage boards or tribunals in settling questions relating to wages, having regard to the claims
~~in this respect in the immediate future should be governed by the~~
of the various groups of workers *inter se*, of the other participants in industry and of the community as a whole. The course of action

in this respect in the immediate future should be governed by the following considerations:

(a) All wage adjustments should conform to the broad principles of social policy, that disparities of income have to be reduced to the utmost extent. The worker must obtain his due share in the national income.

(b) The claims of labour should be dealt with liberally in proportion to the distance which the wages of different categories of workers have to cover before attaining the living wage standard. This consideration will govern the assessment of fair return to capital and fair remuneration to management.

(c) The process of standardization of wages should be accelerated and extended to as large a field as possible. There should be a progressive narrowing down of disparities, in the rates of remuneration of different classes of workers in the same unit, of workers engaged in similar occupations in different units of the same industry, in comparable occupations in different industries and in wages in the same industry at different centres. It would be appropriate in this context to amalgamate a part of the present dearness allowance with the basic wage. Differentials for various jobs should be maintained at the minimum levels justified by

(i) the degree of skill required;

(ii) the strain and the fatigue involved;

(iii) the training and experience required;

(iv) the responsibility to be undertaken;

(v) the mental and physical requirements for doing the work;

(vi) the disagreeableness of the task; and

(vii) the attendant hazards.

(d) A scientific assessment of the relative work-load in different occupations and industries should be taken up.

Pilot studies should be immediately started for this purpose.

11. Full and effective implementation of the minimum wage legislation should be secured during this period. Depressed areas should receive prior attention. In view of the paucity of data and the administrative difficulties pointed out by various State Governments, a limited beginning should be made with regard to the fixation of minimum wages for agricultural workers and the scope should be extended further as experience is gained. Suggestions on this subject have been made earlier in the report.

12. A kind of profit-sharing in the form of periodic bonuses usually awarded by industrial courts and tribunals exists today. No proper basis for these awards has yet been worked out. This should be undertaken by the tripartite machinery already mentioned. To prevent the diversion of resources into consumption, no payment should be made in cash on this account while the inflationary situation lasts. This course of action does not prejudice the worker's claim that bonus is in the nature of a deferred wage as long as he has not attained a living wage standard.

13. Permanent wage boards with a tripartite composition should be set up in each State and at the Centre to deal comprehensively with all aspects of the question of wages; to initiate necessary enquiries, collect data, review the situation from time to time and take decisions regarding wage adjustments *suo motu* or on reference from parties or from the Government.

14. To provide for old age, a statutory provident fund for industrial workers should be instituted.

WORKING CONDITIONS

15. In order to get the best out of a worker in the matter of production, working conditions require to be improved to a large extent. The Factories Act, 1948, the Mines Act, the Plantations Bill, 1951, and the proposed Central legislation for regulating the conditions of work in shops and establishments have this common object and are sufficient for the purpose. The emphasis in the next five years should, therefore, be on the administrative measures needed for the implementation of such legislation. So far as the workers employed in factories are concerned, action may be taken on the following lines:—

(i) Satisfactory standards have not yet been achieved in respect of enforcement in many areas. Factory inspectorates need to be strengthened for this purpose, specially in respect of occupational diseases and other matters relating to the health of workers which call for the association of medical experts;

(ii) Considering the large number of factories and the vast areas over which they are spread, priorities would have to be fixed, to ensure better attention to areas and industries in which sub-standard conditions still prevail and to secure strict compliance with the provisions of law;

(iii) Even within the Factories Act, the enforcement of different provisions may not have equal importance from the point of view of the general well-being of working class. There should, therefore, be greater emphasis on the social aspects of this legislation than on routine matters;

(iv) Standards of inspection for different types of factories should be laid down after consultation with representatives of workers and employers. Strict compliance of agreed standards should be secured;

(v) An inspection code for each industry regarding its working conditions should be prepared. An enquiry should be conducted into the extent to which the existing working conditions fall short of the provisions in the code. A programme should then be worked out for their improvement and a record of progress should be maintained;

(vi) On the welfare side, it is recognised that the primary responsibility in the matter of education and health of workers is that of the State. The employers should assist in making up deficiencies in the provision of education, health and other social needs of workers to such extent as is possible;

(vii) Not much progress has been made with regard to the study of problems of industrial health. The State has to take the initiative in this respect but, for any useful results to be secured, the co-operation of employers and workers is essential; and

(viii) To promote the effective implementation of the various provisions of the Factories Act, as also for providing a centre of information for inspectors, employers and workers, on problems connected with their work, and to stimulate the application of principles of industrial safety, health and welfare, a National Industrial Health Museum is essential. Such a Museum should be established at an early date in a centrally situated industrial area.

Employment and Training

16. Effective utilisation of manpower, having regard to the requirements of both industry and the workers, is a question of national importance. It has received considerable attention in India in recent years, but the position is still not satisfactory. Both the information available regarding employment and the machinery for placement work are inadequate. The progress made regarding the decasualization of employment in case of dock workers and in certain centres of textile industry should be carried forward in other directions. The internal recruiting arrangements made by individual concerns may also be improved. The aim is to eliminate methods of recruitment which lead to the exploitation of workers. The employment exchange organisation set up by the Government is rendering useful but very limited service. An enquiry is urgently needed to examine what changes in character, methods and organisation of the service would help to put the system on a sound footing. The inquiry should embrace other aspects of the question of employment.

17. A progressive rise in the productivity of industry is one of the most pressing needs of the country. The fact that progress in this direction is very much bound up with the provision for technical and vocational training has not received sufficient practical recognition. The facilities provided through the technical and industrial schools, the training centres of the Ministry of Labour and the apprenticeship and training arrangements in industrial undertakings are of a considerable and increasing size, but they remain largely uncoordinated and unplanned. Measures have to be taken to secure proper assessment of the short-term and long-term requirements of the different types of skilled manpower. The organisation of apprenticeship has to be improved both in respect of quality and conditions. Training by private industrial undertakings for their own workers can be very greatly expanded. Proper standards and tests have to be adopted and applied. The problem of the unemployed industrial worker has also to be faced. The worker is

retrenched either because there is no work for him under existing conditions or on account of the fact that industrial operations are rationalised and the workload is increased. To relieve the worker from the insecurity to which he is thus exposed, a constructive approach is necessary. This will chiefly be in the form of adequate provision of retraining facilities with due regard to the prospects of future employment and the establishment of vocational guidance and employment counsel services.

18. The problem of rationalisation has so far proved difficult of solution. Notwithstanding the imperative need to reduce costs by rationalising industrial processes, the working class has strongly resisted it because of the consequent displacement of labour. It is now possible to reconcile the conflict and facilitate progress of rationalisation on the strength of the following safeguards:—

(i) Musters should be standardised and workloads fixed on the basis of technical investigations carried out by experts selected by management and labour. Side by side working conditions should also be standardized. In the case of new machinery, a period of trial may be necessary before standardization is effected;

(ii) Wherever rationalisation is contemplated, fresh recruitment should be stopped and vacancies due to death and retirement should not be filled;

(iii) Surplus workers should be offered work in other departments wherever possible without causing break in service and without bringing down their emoluments;

(iv) Having regard to the position regarding raw materials, the state of the capital market, the availability of capital goods and the demand of products of an industry, wherever the condition of the industry permits, new machinery should be installed;

(v) Gratuity should be offered as an inducement to workers to retire voluntarily;

(vi) Retrenchment should be effected from amongst persons who have been freshly employed;

(vii) Where management and labour agree, the possibility of working for seven days in the week may be explored as a temporary measure;

(viii) Workers thrown out of employment as a result of rationalization should be offered facilities for retraining for alternative occupations. The period of such training may extend upto nine months. A training scheme should be jointly worked out by Government, employers and labour;

(ix) The maintenance of workers during the training period should be the responsibility of management, whereas the cost of training should be borne by the Government;

(x) Full use should be made of the possibilities of utilizing surplus labour in various projects undertaken by Government;

(xi) Incentives for sharing the gains of rationalization through higher wages and a better standard of living should be provided. Where such gains are made through the additional efforts of workers, they should receive a share in the resulting benefit, most of which should pass to workers where wages are below the living wage. Where there has been some capital investment by management, this should be taken into account in distributing the workers' share. The object is to facilitate the workers attaining a living wage standard through acceptance of rationalization; and

(xii) A Joint Consultative Board, consisting of the representatives of the employers and workers and an independent chairman mutually agreed upon for the implementation of an arrangement of this kind, should be set up. It should be a permanent body to deal with all questions relating to rationalisation and retrenchment.

PRODUCTIVITY

19. Considerable attention has been focussed on the productivity of labour in recent years both in this country and abroad. Employers in India have complained that productivity per worker has been going down. Workers contest this allegation with equal vehemence. It is, therefore, necessary that scientific investigations regarding these claims should be undertaken. Such investigations presuppose the existence of trained personnel, reliable industrial and labour statistics and a scientific attitude on the part of organisations of employers and workers. None of these conditions exists in the

country today and much preparatory work is needed. The first step is to evolve methods for carrying out productivity studies under Indian conditions, before the shares of different factors in the causation of high or low levels of productivity can be allocated on the basis of such studies. It is only on the basis of a correct appraisal of the facts and causes that remedial action can be taken on the side of employers and workers. A team of productivity experts should, therefore, be invited under the Technical Assistance Programme. This team should be charged with the responsibility of training a sufficient number of officers from Government, industry and trade unions in developing methods of productivity studies suitable to this country by undertaking pilot projects in organisations, where full cooperation for the task both from employers and workers can be secured. It is understood that some work on these lines is already being attempted for the textile industry. Other industries best suited for making a beginning are iron and steel, cement, paper, etc., where the processes are more or less repetitive. Studies of this kind should form one of the normal activities to be carried out under the auspices of the Ministry of Labour.

CHAPTER 15

HEALTH

In the calculation of the country's resources for economic development the health of the people must be reckoned an important factor. The incidence of sickness, the existence of disability, the death rate, the expectation of life at various ages and the ratio of the active population to the total, determine the quantitative and qualitative use that can be made of the available manpower. In order to provide the baseline from which future progress may be estimated, an assessment of the state of the nation's health is necessary. Such health statistics, as are at present available, are not sufficient for making a satisfactory appraisal. The morbidity and mortality statistics are not only less comprehensive than in many other countries, but are also lacking in accuracy and completeness. Any assessment of the state of positive health and physical fitness of the people is, in the present circumstances, hardly possible. There is evidence of a noticeable decline in the mortality rate during the last twenty-five years, although, compared with several other countries, mortality rates at all ages in India are still very high. This is especially true of the infantile and the maternal mortality rates. The man-days lost on account of sickness obviously constitute a heavy drain on the economy of the country and the number of people who suffer from various degrees of physical disability is very large indeed.

2. Perfect health implies a complete adjustment of man to his total environment—physical, mental and social. Health planning must therefore have as its objective the creation and maintenance of those conditions of life for the individual and for the community which alone can make healthful living possible. The establishment of adequate preventive and curative health services is obviously essential, but they are not enough. The provision of hygienic housing, adequate food, fresh air, a working environment and conditions of employment which reduce hazards to health to the minimum, recreational and cultural facilities in order to promote the wise use of leisure—these are some of the essential requirements which must be fulfilled if a substantial improvement in the health and welfare of the community is to be achieved. Thus, every branch of activity envisaged in a programme of national development has something to contribute towards the purposes of health planning. The specific field of health planning consists, however, in the development and maintenance of personal and impersonal health services on a scale adequate to meet the needs of the people.

3. Poverty and ignorance are the two basic factors underlying the health problem of the country. Its low economic development militates against the creation of an environment conducive to healthy living and the provision of adequate health protection for the people. Lack of general education and health education are powerful contributory factors in keeping down the level of health and welfare of the community.

4. Under-nutrition and mal-nutrition undermine the vitality and reduce the power of resistance to various infectious diseases. The nutritional state of the community is one of the most important factors in determining the tuberculosis rate. The under-nourished worker has a greatly reduced capacity for and interest in his work. According to the Sub-Committee of the Nutrition Advisory Committee of the Indian Council of Medical Research (1950), a child needs between 300 and 2,000 calories up to the age of 12 years; an adolescent (between 12 and 21 years), 2,400 calories; a woman, between 2,100 and 3,000 calories, depending on her condition and the nature of her work; and a man requires 2,400 calories for light and sedentary work, 3,000 for moderate work and 3,800 for very hard work. The actual availability is much lower for most people. The quality and the balance of the various nutrients have a still greater influence on health than the calorific content of food alone and in this respect the deficiencies are enormous. The main preoccupation of the Five Year Plan with the development of agriculture reflects the realization of the seriousness of this situation. To improve the nutritional status of the people, it will be necessary to pay more attention to agricultural practices, methods of food processing and the food habits of the people.

5. The widespread malpractices which affect the purity of food articles available in the market are an aspect of the food problem which should be attended to with vigour and a sense of urgency. The noxious substances which are often used as adulterants are doing insidious harm to the health of the people, and the evil appears to be growing. This must be tackled on the footing of a principal priority both by the administration, armed with adequate powers, and the organised force of public opinion and social action. It must be recognised that the administration of laws relating to the prevention of adulteration is at present largely ineffective. What further measures for the improvement of food laws and what further legislation in this connection by the Centre or the States would prove helpful is a matter for urgent consideration.

6. The home as the centre of the physical environment, sanitary surroundings and the quality of the various community services are

of great importance in determining the state of the peoples' health. Housing conditions in the country have steadily worsened during the war and the post-war period. It has been reckoned that even apart from the influx of refugees, there has been an increase of about 66 per cent. in the urban population. The increase in housing facilities is scarcely 20 per cent. In the Five Year Plan certain measures for the provision of housing have been suggested, but it has to be recognised that in the main the housing shortage has to be met through private effort, duly aided and supported by Government.

7. Maintenance of environmental hygiene presupposes protected water supply. According to a survey of the position of water supply by the Health Survey and Development Committee in 1946, only 6 per cent. of the towns in India had protected water supply which served 6·15 per cent. of the total population of 48·5 per cent. of the urban population. Since then the situation in the towns in this respect has greatly deteriorated owing to over-crowding, influx of displaced persons and postponement of water supply development schemes. In rural and semi-urban areas also, it is altogether unsatisfactory.

8. The introduction of protected water supply can guarantee healthful living only when measures are adopted for the hygienic collection and disposal of community wastes. Only 23 cities out of 48, having a population exceeding a lakh, have sewerage systems. There are 12 other towns which are partially sewered. About 3 per cent. of the total population is now served by sewerage systems. Rivers, lakes, fields and beaches are often polluted by the discharge of wastes and excreta by individuals, municipalities and factories. It is necessary to carry out sewerage and industrial waste treatment so as to adjust the pollutional load to the capacity of the receiving body of water for self-purification. For sanitation in rural areas, it is important—not enough attention is being given to this at present—that cheap and effective type designs of latrines suitable for the locality should be made available to the people and an effort made to provide technical supervision. Public latrines in the villages are not an adequate substitute for private latrines.

9. The inadequacy of the medical and preventive organization in the country may be judged by a comparison of the existing strength of the health personnel with the standards recommended by the Health Survey and Development Committee. The Committee suggested as a long-term objective one doctor for a population of 2,000, one nurse for 500, one midwife for 4,000. The corresponding proportions in India are one doctor for a population of 6,300, one nurse for 43,000 and one midwife for 60,000. In all directions, the gaps are large.

10. The Health Survey and Development Committee proposed a long-term and a short-term programme of reorganization of health services. It envisaged primary units as peripheral organs for the administration of the preventive and curative care of the people; the provision of a higher type of medical service at the secondary health centre which would also supervise the work of a number of primary units, and facilities at a still higher level at the headquarters of the district. It has to be recognised that resources for implementing this part of the recommendations during the next five years are not likely to be available. It is suggested, however, that as far as possible, existing facilities may be readjusted or reorganised and possible further expansion carried out so as to conform to the main lines proposed by the Committee.

11. The limitation of funds available for expenditure on health makes it imperative that the health programme for the next five years is based on a careful consideration of priorities, and that the approach to the various problems of health is in keeping with the basic economic conditions in the country. These considerations received special attention from our Panel on Health Programmes whose recommendations have guided us in reaching conclusions on various aspects of the health problem. Much of the ground has been exhaustively covered in the reports of several expert committees which have reported in recent years, and here we do not propose to do more than refer in general terms to some aspects which are of special significance in the context of planning.

12. The large incidence of sickness among those engaged in productive occupations is a factor impeding increased production. This. in part, determines the choice of the specific measures to be included in the health programme. It is recommended that during the next five years additional resources should be concentrated on preventive work rather than curative facilities. Rural areas, especially those marked out for intensive development, should receive much greater attention. Even with regard to the producing sections of the population, it will be better to select for special effort a few urgent problems which are relatively easy to handle, and which promise tangible results within the five year period.

MALARIA

13. It is evident that in the conditions of this country measures to combat malaria must stand very high in the order of priorities. It has been computed that malaria takes an annual toll of a million lives in the country, and entails very heavy economic loss. Spraying with

DDT is now available as an effective means for controlling the incidence of malaria. Systematic anti-malarial measures have succeeded in several parts of the country in bringing down the sickness rate and in increasing output. Anti-malaria projects have to be an essential part of programmes of land reclamation and of programmes for the full utilization of irrigation. Anti-malaria work is being undertaken by many State Governments, the present rate of expenditure being of the order of about Rs. 1½ crores a year. International organizations are also rendering valuable help in this field.

TUBERCULOSIS

14. There are 5,00,000 deaths every year in India due to tuberculosis and 2½ million persons are suffering from tuberculosis and 2½ million persons are suffering from active tubercular disease. It has to be acknowledged that adequate resources for dealing with the problem on a suitable scale do not exist at present. Some progress in several directions is, however, possible. Each State may have at least one tuberculosis demonstration and teaching centre. More tuberculosis clinics and hospitals are needed in crowded areas. The quality of the work of the clinics may be improved by extending domiciliary treatment with the help of health visitors. Private bodies may be encouraged to build sanatoria. BCG vaccination programmes should be extended on a large scale. Propaganda campaigns should be initiated and institutions should be started to bring home to the people the size and seriousness of the problem.

RURAL HEALTH

15. Increase in the production of food and raw materials being the major objective of the Five Year Plan, the health programme for rural areas assumes corresponding importance and has to be developed on that basis. This inevitably leads to an emphasis on the prevention of disease and the preservation of health. Measures devised for improvement of the environment—water supply, drainage, disposal of human wastes—should be within the means of the people and should be based on a thorough study of local conditions. A programme for developing health units should be worked out, each unit with a body of personnel capable of looking after the varied needs of an area of about 40 square miles with a population of about 40,000. For medical aid in the villages which are not adequately served, medicine boxes should be made available and some resident auxiliary personnel, should, after training, be entrusted with the distribution

of selected medicines for common and minor ailments under proper supervision.

16. The accepted view is that for the rural population health centres should be so organised as to integrate the curative and the preventive services.

Woman and Child Welfare

17. Maternity and child welfare is a service that is kept in the forefront in the planning of all progressive health programmes. The care of mothers and children leaves much to be desired in both urban and rural areas. For the adequate care of the mother and the child, it is necessary to treat the family as a unit and organise a health centre which can cater to the needs of all the members of the family. This development may take time; meanwhile more maternity and child welfare centres, adequately staffed, should be established in the towns. There is need for a large increase in the number of maternity beds. Municipalities should licence all private maternity homes and hospitals. A percentage of the beds should ordinarily be reserved for children. Post-natal and pre-natal clinics should form an essential feature of all hospitals with maternity beds.

18. *Dais* in the villages are mostly untrained and short training courses for them have a high priority. In the training of doctors and nurses care should be taken that they are more adequately equipped for handling the diseases of children.

Industrial Health

19. Modern industry creates an environment in which are found lurking a host of known and unknown diseases. It uses a large number of toxic agents and dusty processes. The work is often fatiguing and hazardous. The Factories Act of 1948 deals comprehensively with the problems of health, welfare and safety. But in regard to problems of industrial hygiene, occupational diseases and the provision of adequate industrial medical service, suitable action has not yet been taken. To improve the position in this respect expert opinion is in favour of the adoption of the following measures:—

(1) To provide for adequate industrial health supervision, it is necessary for each State to appoint at least one whole-time specially qualified medical inspector on the staff of the factories inspectorate;

(2) Team work is the essence of successful factory inspection. Many of the problems relating to industrial health and safety cannot be tackled either by the engineer or by the medical man singly. Since licence fees are being levied under the Factories Act 1948, it should be possible for the State to provide an adequate inspection service, which should, in addition to carrying out inspections required under the Factories Act 1948, function as a technical service to industry. The present inspection service of the States should be equipped and reorganised with this object;

(3) As mentioned earlier, for the proper implementation of the various provisions of the Factories Act, to provide for a centre of information for inspectorates, employers and employees on problems connected with their work and to stimulate the application of the principles of industrial safety, health and welfare, the establishment of an industrial health, welfare and safety museum will be useful;

(4) Industrial hygiene surveys should be carried out with particular reference to certain specified industries; and

(5) The subject of industrial health should be introduced in under-graduate and post-graduate classes of medical, engineering and social science institutions. Facilities for post-graduate studies and research in industrial health subjects are also needed.

HEALTH EDUCATION

20. If it is considered how large is the volume of sickness, and the extent of impairment of health resulting from ignorance of simple rules, there is hardly a line of effort in the field of health which is capable of yielding as high a return, in proportion to outlay, as the spread of health education. All possible agencies, public and private, should be availed of for carrying on the work of health education. The following suggestions are commended for consideration:—

(1) The fullest use should be made of the primary schools as means of imparting health education to students and also to stimulate a lively interest in healthy living, both personal and communal, in their neighbourhood. In

teaching hygiene to primary school children more stress should be laid on the inculcation of hygienic habits in students than on the imparting of theoretical knowledge. A knowledge of basic principles of hygiene, community health, and pysiology should be considered essential for qualifying examinations at the end of the secondary school stage.

(2) Health Education should be considered as an integral part of health activity at the district and State level. States should try and maintain Bureaus of Health Education in charge of specially trained officers. The Central Ministry of Health should assist these Bureaus with literature and information. State Governments should prepare and supply suitable material and literature to schools and other institutions.

(3) Health education of the population of the rural areas should receive special attention in the districts. Rural health centres, health organizations and maternity and child welfare centres should be utilized for carrying on health education programmes. Voluntary organizations engaged in health education work should assist and their co-operation should be sought as far as possible; and

(4) Broadcasting programmes should pay special attention to health education. At present this important means of mass education is not being fully turned to account.

21. The material prepared for imparting health knowledge to the people should draw upon all available sources, including the traditional practices and Ayurvedic texts. Nature cure can furnish useful help for the maintenance and improvement of health and vitality. The testing and standardization of this scattered knowledge offers an important fields for research.

PHYSICAL EDUCATION

22. The importance of physical education is being increasingly recognised. The problem affects persons in different age groups, but it is in schools and colleges that it needs the greatest attention. Among the steps which we wish to commend to State Governments and other authorities are:—

(1) A National College of Physical Education should be set up for training the higher personnel for physical education

and community recreation and leadership. The upgrading of the existing central institution for physical education in Bombay may be considered.

(2) Suitable courses of physical education in schools should be prepared. These should provide for games and sports, as well as suitable yogic exercises;

(3) Facilities for teaching in physical education are at present inadequate. Short-term courses in physical education for primary school teachers should be organised. In secondary schools there should be qualified physical education teachers. In teachers' training institutions, physical education should be an essential subject;

(4) There is need for research in physical education, the major problems for investigation being

(i) the relative value of different sports, games and exercises from the physiological, psychological, social and educational points of view;

(ii) the value of the Yogic system of exercises; and

(iii) appropriate suitable syllabuses of physical education for different age and vocational groups.

TRAINING AND RESEARCH

23. Training of health personnel has to receive continuous attention both for the purposes of improving the quality of the health services and to provide for future stages in development when a much larger proportion of resources should be available for health measures. New medical colleges should be established in those places where large hospitals are already in existence. It is believed that the double-shift system introduced in certain institutions is not conducive to the maintenance of proper standards. This question should be examined. Considerable wastage due to failures in practically all the medical colleges in the country should also receive attention. Certain selected hospitals in the States may be upgraded so that they can be utilised for the purpose of introducing a system of compulsory internship in the medical course leading to the degree of M.B.B.S. It is eminently desirable that, in regard to every medical college, there must be provision for giving the students an opportunity to do rural health work. For this purpose a rural health organisation, somewhat on

the lines of the Singur Health Centre attached to the All-India Institute of Hygiene and Public Health, should be built up. Facilities should also be provided for the training of medical social workers with special reference to diversional therapy.

The Five Year Plan provides for the establishment, by the Central Government, of an All-India Medical Institute and for upgrading existing institutions, so that adequate post-graduate medical training should be available within the country. The main object of the proposed institute will be to train teachers for the various medical colleges in India.

Considerable expansion of training facilities for the production of non-medical personnel is necessary. It may be possible to admit an increased number of health trainees like nurses, mid-wives and *dais* in existing institutions. The need is being increasingly felt for training a type of rural health personnel which may be capable of performing, under proper medical supervision, such preventive duties as inoculation and vaccination, identification of minor ailments, distribution of simple medicines.

To promote medical research, various departments in medical colleges should be encouraged to take up research work in addition to their routine teaching duties. For this purpose library facilities have to be greatly improved. Larger funds are being provided for expanding research programmes initiated by the Indian Council of Medical Research.

SUPPLY OF DRUGS AND EQUIPMENT

24. India has been largely dependent for drugs on imports. Concentrated efforts have been made in recent years to meet a part of India's pharmaceutical requirements through internal production. Much ground still remains to be covered. There has been little or no progress regarding the production of basic chemicals required for the manufacture of synthetic remedies, chemo-therapeutic compounds such as anti-malarials, anti-dysentrics, sulpha drugs, arsenicals etc., which are required in substantial quantities. In a programme for producing standard drugs within the country, attention should be directed in the first instance to the following:

(1) Drugs which have a direct bearing on increased production of food, for instance, insecticides and prophylactic drugs for intensive anti-malarial operations. Production of DDT has a high priority and steps to increase its production are being recommended;

(2) Antibiotics such as penicillin, streptomycin, etc.;

(3) Sulpha drugs and anti-leprosy drugs; and

(4) Anti-dysenteric drugs.

25. We also recommend measures to promote the greater production of surgical instruments, surgical dressings, glass containers and pipes and fittings for water supply and sewerage.

26. It is possible to effect considerable economies in the consumption of drugs, specially those which are now being imported, by measures for rationalizing their use in prescriptions and for the purpose of injections. In this connection, a small expert committee to evolve appropriate proposals for medical practitioners may be useful.

27. As has been mentioned earlier, the sale of adulterated and substandard drugs and black marketing in drugs has assumed the magnitude of a major evil and calls for stringent action on the part of Government.

28. India has rich resources in vegetable *materia medica,* but there has been no coordinated effort in research and standardization of these drugs. There is hardly any organization for the collection of herbs of reliable quality used in Ayurveda. The study and survey of medicinal plants in India has to aim at

(1) self-sufficiency in regard to indigenous drugs by processing them in a form suitable for administration,

(2) discovery of remedies from the indigenous systems so that they could be suitably employed in Western medicine, and

(3) discovery of means so that these remedies could be economically used, in pure condition, by the great masses of India.

INDIGENOUS AND OTHER SYSTEMS

29. A great deal of uncertainty exists about the position and the future course of development of indigenous systems, homeopathy and nature cure. It is desirable that this should be cleared up as early as possible. The controversy with regard to the truth and merits of any particular technique of cure or approach to the problems of health and disease can only be settled on the touchstone of research.

Scientifically conducted investigations will, in course of time, decide the value and validity of the different techniques and those which can justify their existence will necessarily become branches of an integrated system of medicine. In the Five Year Plan provision has been made for research into indigenous and other systems. Facilities should be made available to study Naturopathy in all its aspects as a post-graduate subject.

30. Professional training for the practice of the indigenous system is an important matter for consideration. A curriculum drawn up for the purpose has to be designed primarily to enable the student to attain full proficiency in the practice of the particular system. But he cannot afford to ignore the body of medical knowledge which has grown up under the impetus of scientific methods. As has been well expressed, 'it is not necessary that he should be able to apply these technical procedures himself at all times, particularly in surgical specialities, but it is essential that he should have the knowledge which will enable him to recognise the need for calling in the aid of these specialities in the interests of his patients.' The details of the curriculum which can satisfy both these conditions will have to be worked out with the help of the results of research and experience. The recommendations of the various committees appointed by Government in recent years should furnish the requisite broad basis for dealing with questions relating to Ayurveda, Unani, and Homeopathy in a satisfactory manner. A similar inquiry may usefully be instituted into the system of Nature Cure. Action on the recommendations of reports of expert committees which have examined the problems should be taken at an early date.

VITAL STATISTICS

31. The need for initiating measures to improve the registration and compilation of vital statistics cannot be over-emphasised. Important gaps in statistical data have to be filled and in respect of quality there are serious defects to be remedied. Proposals on the subject were made by the Health Survey and Development Committee in 1946 and by the Vital Statistics Committee in 1949. The recent census has thrown up a body of new material which is under examination by the Registrar General and Census Commissioner and it may be some time before proposals for an improved system take shape. In the meantime, we have felt it necessary to make a small financial allocation in the Plan which may be utilised for the purpose of pilot studies for improving the machinery for the registration and compilation of births, deaths and other vital events, especially in rural areas.

FAMILY PLANNING

32. Reference has been made in an earlier part of this report to the rapid growth of population and the consequent pressure on the limited resources of the country. There is insufficient awareness yet among the people of the need for family planning. On the whole, it is evident that unless steps are taken deliberately to reduce the birth-rate, the upward trend of population will continue; since improvement in medical facilities, and better control of epidemics, together with the measures taken to provide a certain minimum of food for the poorer sections of the community should help to lower the death rate further.

While family planning is intended to bring down over a period of time the rate of population growth, immediately it is a step in the direction of improvement in health, especially of mothers and children. Frequent and ill-spaced child births undermine the health of the mother. A high birth rate under conditions of poverty and mal-nutritition is inevitably connected with a high rate of infant mortality and a high incidence of disease and deformity among children. In planning for a rising standard of life, the provisions of a more healthy and cheerful existence for children in the formative period of their life is a matter of great importance. Family planning is thus a vital step in economic and social planning.

33. In as much as an alteration in population trends takes at least a few generations to materialise, a plan for a limited period has to concentrate on the education of public opinion as to the need for a limitation of numbers. By and large, a programme of family limitation must be a social movement which would call for initiative on the part of individual families and general development of public opinion. The State, therefore, can only play a limited role in this respect. We are in agreement with the following recommendations made by the sub-committee on Population and Family Planning of our Panel on Health Programmes, and commend them for consideration:

(a) The State should provide facilities for sterilization or giving advice on contraception on medical grounds.

(b) Such help and advice should not be withheld from others who seek and need it on social and economic grounds. Such services however, should be provided to the extent that the personnel in hospitals and health agencies can undertake them consistently with its other duties.

(c) The State should also, through financial aid and otherwise, assist in the establishment of Research and Information Centres organised for the following purposes:

(i) Collection, study and dissemination of information based on scientifically tested experience in our country and abroad in respect of all aspects of family limitation; and the countering of ill-effects of incorrect information; and

(ii) Research necessary for the development of inexpensive, safe and efficacious methods of birth control suitable for all classes of people; and methods of preparation of necessary appliances and materials based on raw materials available in the country.

Methods of family limitation other than contraceptives should also be investigated. In this connection the question of raising the age of marriage of girls deserves consideration.

CHAPTER 16

HOUSING

THE SITUATION

THERE has been a shortage of houses in most countries, in the post-war period. In some countries it has been accentuated as a result of war damage; in others, not affected directly by war, the low level of constructional activity in the last decade and the absence of proper maintenance and repairs have been to a large extent responsible for the present inadequacy of residential accommodation. So far as India is concerned, the recent partition of the country has been an additional contributory factor.

URBAN AREAS

2. Urban areas where housing was already inadequate are now suffering from an acute insufficiency of low-income housing. The lack of proper planning in these areas has led to haphazard development and construction of small, ill-ventilated, dingy dwellings. Even in such dwellings, the tendency has been to make the maximum use of the existing accommodation. This has resulted inevitably in extreme conditions of overcrowding. Water supply, drainage and lighting facilities, which were already inadequate in these areas, have been further strained with consequent effect on the health and well-being of the residents. Recent migration of labour to urban areas has brought in existence 'labour camps' and, though this phenomenon is of comparatively recent growth, its long-term repercussions on normal urban life are of a far-reaching character.

RURAL AREAS

3. Conditions in rural areas are no better. In the case of villages, a redeeming feature, however, is access to open spaces, fresh air and sunshine—gifts of nature denied to town-dwellers. Rural areas, however, have their own problems, chief among them being lack of supply of wholesome drinking water, drainage, proper sanitation and means of communication.

STATE AND LOCAL BODIES

4. During the war, Governments and Local Bodies in the country were concerned mainly with the problem of providing housing to essential military and civilian personnel and preventing an undue rise in rents, especially for low-income and middle-income groups of the population. Since the end of the war, Government have undertaken some construction in large towns in order to accommodate persons of low-income groups, but the effort has been far from commensurate with the needs of the population. A few States have shown an awareness of the acute problem and their obligations in regard to it. But the limitations of their resources have precluded them from carrying out steadily a substantial housing programme. The Central Government offered to promote the construction of houses by a measure of assistance, but in practice the programme did not stimulate much fresh activity. The effort of Local Bodies was equally ineffective in reducing the housing shortage to any appreciable extent.

PRIVATE ENTERPRISE

5. Housing has thus been left almost entirely to private enterprise. A small fraction of the demand has been met by cooperative housing societies, but their efforts cannot be considered to have contributed much to ease the chronic housing shortage. Construction on private account almost ceased during war. This happened primarily because of an acute shortage of building materials, which led to the imposition of stringent restrictions on their use. The result was an increasing pressure on the existing accommodation, so that Government had to take measures for checking a rise in rents and also for requisitioning premises for persons engaged in essential services. Investment in housing thus became less remunerative and more irksome.

HOUSING POLICY AND PROGRAMME

6. The need for provision of suitable housing accommodation in adequate quantity has been stressed by Committees and Commissions appointed from time to time by the Central and State Governments. The urgency of the problem has been fully recognised. It is evident, it is not possible for private enterprise by itself to meet the housing needs of the lower income groups. Even though the position regarding building materials has become somewhat easier, the high cost of construction effectually limits any advance in this direction. The economic rent for even the minimum standard of

accommodation is altogether beyond the means of the working class and a large section of the middle classes. In the case of the former, not much additional provision has been made by employers during recent years. Dispersal of industry which might have helped to ease the situation has not occurred to any extent; nor has it been found feasible in any degree to enforce compulsion on employers to provide housing accommodation for a proportion of their employees. In these circumstances, plainly, it becomes the responsibility of Government to step in and organise a programme of construction to make up the growing housing deficit.

7. A drive for improving housing both in urban and rural areas is necessary but, in the existing state of the financial resources of the community, the problem will have to be tackled in stages. The fact; that immediately urban housing needs greater attention has to be recognised. Even in urban areas, it is necessary to proceed on the basis of certain well-defined priorities. These are obviously indicated in favour of persons belonging to low-income groups.

8. The Industrial Truce Resolution, to which Government, employers and labour were parties, created a basis for a practical programme of construction of new houses. In pursuance of it, the Central Government has formulated and put forward a series of schemes but, mainly for financial reasons, not much progress has been made so far. The hardships and discontent of workers have, on this account, been increasing. Government will have to apply itself earnestly and without delay to a solution of the problem. If it has to depend on its own resources, the progress cannot but be very limited. A large contribution for financing a housing programme has, therefore, to come from industry which employs the workers. The alternative would be to increase the wages to such an extent as to enable workers to pay the economic rent. The balance of advantage, however, lies in the provision of subsidized houses. The support of workers may also be enlisted in meeting the capital cost through compulsory savings to enlarge the size of the construction programme.

As much attention as possible should be paid to the housing needs of other sections also.

9. The following programme is proposed for implementation during the next five years:

(a) *Industrial Housing:* Construction of about 25,000 housing units every year in the principal industrial centres for industrial workers may be undertaken;

(b) *Housing for other low-income groups*: This may take the form of assistance for relieving the housing shortage for other low income groups, by direct construction to an extent; provision of developed sites and cheap loans to cooperative housing societies; and

(c) *Rural Housing*: There is a demand that villages should be reconstructed on the basis of modern principles of planning but for obvious reasons it is impossible to find a practical solution to this end. New sites for rural communities and the expansion of existing villages can, at any rate, have the benefit of better planning. Considerable progress can be achieved in rural housing by a proper utilisation of the real resources of the village community. The under-employed rural population can be harnessed for construction work. Organisation of community effort on these lines and technical guidance for improvement of the environment would make a considerable difference.

10. To facilitate implementation of this programme action has to be taken mainly in the direction of provision of finance, reduction in housing costs, help to private enterprise and the establishment of a suitable organisation.

HOUSING FINANCE

11. In recent months much thought has been given both by the Planning Commission and the Ministry of Labour to the problem of finance for industrial housing. The scheme drawn up for this purpose envisages the creation of a National Housing Fund constituted as follows:

Source	Extent of contribution	Estimated receipts (5 yrs)
1. Employer.*	An outright grant amounting to 2½% of the total wage bill (inclusive of dearness allowance) annually; and a monthly subsidy towards the rent of each house allotted to his employees (see below) ...	Rs. 15 crores
2. Workers*	As contribution towards a compulsory savings scheme, 2½% of their monthly wages (inclusive of dearness allowance) the amount so contributed by workers being treated as loan at 3% interest (Rent at 15% of earning) ...	Rs. 15 crores

* In selected industrial centres.

Source	Extent of contribution	Estimated receipts (5 yrs.)
3. Central Government:	An average grant of Rs. 2·7 crores per year plus expenditure on the Central Housing Board ...	Rs. 13·5 crores
4. State Governments :	Provision for industrial housing in the plans of State Governments ...	Rs. 3·7 crores‡.

~~* Governments for other housing.~~

‡There is an additional provision of Rs. 5·6 crores in the plans of State Governments for other housing.

It is proposed that exemptions under this scheme may be granted to employers to the extent of housing of approved standard provided by them for their workers.

12. An alternative scheme for raising finance would be to utilise the money in the Provident Fund Account for financing industrial housing. The scheme envisages that about 70 per cent. of the amount collected by way of Provident Fund from employers and workers would be advanced as a loan to the National Housing Board, and the balance, that is 30 per cent. could be retained in the Fund for meeting normal and emergent demands on it from year to year.

13. The National Housing Board will build up a sinking fund for the repayment of loans. The difference between the economic rent calculated on the basis that charges in respect of sinking fund will be borne by Government and the rent payable by workers is to be paid by employers. A worker will be charged rent at a rate not exceeding 15 per cent. of his monthly earnings.

Reduction in Costs

14. As compared to the magnitude of the problem, the allocation made for industrial housing is small; but looking to the overall needs of the country, it is impossible to do anything better. In order to make the available finances go a long way, it is necessary that housing policy should aim also at reduction in building costs.

Large areas of land may be needed for any programme of industrial housing. The cost of land is the most important factor affecting the total cost of construction. It is more so in areas where industrial housing schemes are put into execution. Any economy, which might be effected in actual building costs, would have very little influence on the over-all housing costs, if land prices are not effectively controlled. It is essential that land should be made available at reasonable prices in various industrial towns in which the scheme is proposed to be implemented. Since land values are going up, it is suggested that immediate steps should be taken in all States to amend the Land Acquisition Act with a view to facilitating the acquisition of land for housing purposes at prices payable for land on the basis of the use to which it was put on the material date, that is, the date on which the land is notified for acquisition.

15. In order to eliminate the speculative element in land and discourage land hoarding in urban areas, we recommend that the taxation structure on vacant lands should be designed in such a manner as to make all such land hoarding unprofitable.

16. It is obvious that any appreciable reduction in the cost of construction would bring down to a corresponding extent the economic rent and thus reduce the factor of subsidy. A Sub-Committee of our Housing Panel has made a close study of this problem from which the following suggestions have emerged.

17. Building costs can be analysed under the following heads:—

(a) Materials and labour;

(b) Architectural designs;

(c) Structural designs; and

(d) Programming of works and administrative and executive details.

(a) *Materials and labour.*—(i) Experience shows that except where there is concentration of works, it is less expensive to allow private enterprise to handle production and distribution of materials. In cases where work is concentrated, a well-organized and efficient public organisation for the production of materials may result in reducing costs;

(ii) Vocational training is equally important in reducing costs. In all housing programmes undertaken by contractors on behalf of public bodies a specific clause requiring the contractor to train some apprentices should be inserted;

(iii) It is well known that it is extremely difficult to take work from unskilled workers without proper incentives. Economies can be effected by adopting a system of payment by results; and

(iv) Co-operative self-help, which has considerable potentialities in reducing costs of labour and materials, should be organised wherever feasible.

(b) *Architectural Designs.*—Efficient planning of residential buildings helps to bring down costs. The important aspects of design, which have a special bearing on costs are:—

(i) General planning should cut down unnecessary areas to the minimum and should make the plan of a house more compact;

(ii) Laying down minimum standards for plinths, heights, floors, sizes of rooms, areas of doors and windows; and

(iii) Standardization of the sizes of doors and windows.

(c) *Structural Designs.*—Appreciable economies are possible in the matter of structural design by the following methods:

(i) Functional requirements for different structural parts may be adopted instead of laying down specifications;

(ii) The combination of traditional methods with the pre-fabricated building components. Fully pre-fabricated houses appear to be neither economical nor quite suitable. The selection of a design should be dependent on the condition that local materials and local labour are largely used on its construction.

While the need for reducing the specifications to the minimum in the interest of economy is urgent, it will be extremely unwise to adopt sub-standard specifications for buildings constructed with public funds. Economy at the sacrifice of durability, liveability and strength of structures is not desirable.

(d) *Programming.*—(i) A high degree of efficiency and economy cannot be achieved in any building operation, unless it is planned in detail before the work is commenced. The construction agency should get enough time for proper programming of work. The present method of year to year budgetting operates against the forward planning of works.

(ii) The rates of the larger contracting firms are comparatively higher than those of smaller firms. The amount of contract should, therefore, be kept low. A tentative ceiling of Rs. 5 lakhs is suggested for this purpose;

(iii) Sound tendering procedure in accordance with accepted local practice should be followed to avoid extra items later. A procedure should be devised for prompt payment of running and final bills to contractors, as delay in payment adds to cost; and

(iv) Suitable training courses should be organised for making engineers 'cost minded'. They should be kept in touch with modern engineering practices and the work done in other localities in the matter of improved building techniques.

18. If all the above suggestions are implemented, in actual construction, the reduction in costs which may be possible without having to sacrifice the strength and comfort of a structure, is reckoned at 15 to 20 per cent.

RESEARCH

19. On the research side the following measures are required to be undertaken:—

(a) The Central Building Research Institute at Roorkee provides a nucleus for organised research on technical aspects of building materials and methods. All problems of major importance should be sent to this Institute for technical examination. There should be in addition regional institutes at selected centres for similar work. Each such institute should have an advisory board representing various interests; and

(b) All construction agencies under public control for instance, State Public Works Departments, municipalities, railways, Military Engineering Services, etc., should be required to employ the latest building techniques and equipment.

20. In addition, attempts should be made—

(i) to draw up uniform building codes;

(ii) to improve the manufacture and use of local materials; and

(iii) to develop new and cheap building materials such as treated jungle-wood.

A Central Library Service for collection and dissemination of information regarding housing is considered to be very essential.

21. While all these measures are likely to contribute towards reduction in costs, the main source of economy in Government construction may lie in the advance programming of housing work and the organization of the building trade in all its aspects including training of personnel at all levels. It is also necessary that research on technical aspects of building materials and methods should be encouraged with a view to its practical application in large-scale housing programmes. It has been estimated by a committee of experts recently appointed by Government that even without radical alterations in the methods of construction, it is possible to effect, by adopting the above measures, economy of the order of 15 per cent. in building construction. By itself this is no small saving, if one takes into account the industrial housing programme alone. But when the building activity in the public sector (which is of the order of Rs. 150 crores a year) is taken into account in its entirety, the finance available either for diversion or for intensification of the programme can be of a sizeable magnitude.

HELP TO PRIVATE ENTERPRISE

22. Private enterprise has all along played an important part in housing activity. It is necessary to encourage initiative on its part for the solution of the housing problem. Provided houses are built according to approved standards, and allotment to low-income groups is subject to the control of public authorities, the following suggestions for encouraging private effort may be briefly mentioned:

(a) Simplification of procedure regarding land acquisition;

(b) Removing difficulties in the way of getting controlled materials;

(c) Obtaining finance on easy terms wherever necessary;

(d) Provision in advance of adequate amenities and services;

(e) Exemption from stamp duty on purchase of land; and

(f) Exemption from General Municipal Tax and Urban Immoveable Property Tax for a fixed number of years.

23. It is, however, necessary, to safeguard against spurious organizations seeking assistance of the type suggested above. The State

should, therefore, effectively control the activities of unhealthy combinations in the interests of the community.

24. In order that the recommendations made above, are effective in relieving housing shortage, the following further measures may have to be undertaken:—

(a) Complete survey of the available accommodation in urban areas where housing shortage is very acute;

(b) Utilization of unutilized or insufficiently utilized buildings in urban areas;

(c) Placing restrictions on the use of scarce building materials for use in construction of luxury buildings;

(d) Technical advice on the construction of suitable structures at nominal cost;

(e) Organization of building centres in important towns where people can see for themselves the latest developments in house construction and building materials; and

(f) Preparation of a model Town and Village Planning Act for adoption by States.

NATIONAL AND STATE HOUSING BOARDS

25. In order to implement the above recommendations a National Housing Board should be set up at the Centre with Regional Boards functioning in the States which have substantial programmes of work to execute. The National Housing Board will be a policy board and may administer the Housing Fund, allocate finance to different States according to their needs, and suggest priorities for different schemes Functions especially within the sphere of the National Housing Board may be

(a) to activate building programmes and serve as a clearing house for information;

(b) to initiate establishment of new town-ships; and

(c) to coordinate and initiate building research.

26. There will be some functions which are common to the National and Regional Housing Boards, for instance:—

(a) to suggest and expedite preparation of master plans;

Name of Project	Total cost	Expenditure incurred upto March 1951	Expenditure			
			1951-52	1952-53	Two years total	1953-54
1	2	3	4	5	6	7
BOMBAY						
Irrigation						
Gangapur Storage Project . . .	3,34	1,00	28	50	78	56
Wardala Dam Project . .	12	...	...	5	5	5
Ghataprabha Left Bank Canal Project	5,45	1,00	28	50	78	1,27
Mahi Right Bank Canal Project .	4,25	24	14	50	64	1,17
Ranand tank	22	3	4	9	13	6
Kolchi Weir	18	11	1	2	3	4
Kakrapara Project	12,16	65	1,08	1,54	2,62	3,00
Total .	25,72	3,03	1,83	3,20	5,03	6,15
Power						
Radhanagri Hydro-electric Project	2,07	1,22	23	42	65	20
Kolhapur emergency irrigation and city conversion scheme .	29	12	4	13	17	...
Jog distribution scheme . .	2,13	...	45	1,00	1,45	68
Chola Power Station . . .	2,95	28	1,24	1,25	2,49	18
North Gujrat Electric Grid scheme	2,51	90	39	40	79	50
South Gujrat Electric Grid scheme	3,21	91	39	60	99	50
Electrification of towns and villages	96	26	19	17	36	20
Total .	14,12	3,69	2,93	3,97	6,90	2,26
GRAND TOTAL . .	39,84	6,72	4,76	7,17	11,93	8,41

(Rupees in lakhs)

proposed			Balance of cost	Benefits Additional Irrigation and/or Power (000 acres/000 K. W.)					
1954-55	1955-56	Five years total		1951-52	1952-53	1953-54	1954-55	1955-56	On completion
8	9	10	11	12	13	14	15	16	17
50	50	2,34	...	...	...	...	20	30	38
2	...	12	...	...	...	...	...	3	3
1,20	1,20	4,45	...	...	30	60	80	100	120
1,10	1,10	4,01	...	...	1	3	10	20	105
...	...	19	...	...	1	3	4	4	4
...	...	7	...	...	1	2	4	4	6
3,00	2,89	11,51	...	115	115	220	270	*330* 24	*600* 24
5,82	5,69	22,69	..	115	148	288	388	491 *24*	876 *24*(P)
...	...	85	...	1	2	5	5	5	5
...	...	17	...	1	1	1	1	1	1
...	...	2,13	...	...	2	12	12	12	12
...	...	2,67	...	...	...	54	54	54	54
32	...	1,61	...	5	8	10	18	18	18
50	31	2,30	...	...	15	15	23	23	23
14	...	70	...	2	4	4	4	4	4
96	31	10,43	...	9	32	101	117	141	141
6,78	6.00	33,12	... ...	115 9	148 32	288 101	388 117	491 141	876 (I) 141(P)

Name of Project	Total cost	Expenditure incurred upto March 1951	Expenditure			
			1951-52	1952-53	Two years total	1953-54
1	2	3	4	5	6	7
MADHYA PRADESH						
Irrigation						
Construction of Area Tank in Chindwara	32	14	10	8	18	...
Dokerli	16	...	2	6	8	6
Bargoor	22	...	2	9	11	9
Gondli	75	...	2	24	26	23
Dudhwa	1,50	...	2	40	42	31
Sampra	30	...	1	5	6	8
Dukrikhera	30	...	1	6	7	8
Total	3,55	14	20	98	1,18	85
Power						
Central Thermal Station, Nagpur	4,85	7,95	76	...	76	...
Distribution system	36		13	12	25	...
Akhola Power Distribution	3,71		52	57	1,09	53
Gondia Extension	33		8	18	26	...
Northern Grid Jubbalpur-Katni	62		16	30	46	...
Raipur Pilot Station	1,28		10	24	34	9
Power Station Billaspur	1,92		50	78	1,28	...
Others	62		7	...	7	...
Total	**13,69**	**7,95**	**2,32**	**2,19**	**4,51**	**62**
GRAND TOTAL	**17,24**	**8,09**	**2,52**	**3,17**	**5,69**	**1,47**

(Rupees in lakhs)

proposed			Balance of Cost	Benefits Additional Irrigation and/or Power (000 acres/000 k. w.)					
1954-55	1955-56	Five years total		1951-52	1952-53	1953-54	1954-55	1955-56	On completion
8	9	10	11	12	13	14	15	16	17
...	...	18	...	4	10	10	10	10	10
2	...	16	...	...	...	2	4	4	4
2	...	22	...	...	...	3	5	5	5
23	3	75	...	...	...	10	30	50	50
31	31	1,35	15	...	...	10	40	70	90
8	8	30	...	...	...	2	6	10	10
8	7	30	...	...	...	2	6	10	10
74	49	3,26	15	4	10	39	101	159	179
...	...	76	...	35	40	40	55	55	55
...	...	25	...						
45	25	2,31	...						
...	...	26	...						
...	...	46	...						
9	9	62	...						
...	...	1,28	...						
...	...	7	...						
54	34	6,01	...	35	40	40	55	55	55
1,28	83	9,27	15	14 35	10 40	39 40	101 55	159 55	179(I) 55(P)

Name of Project	Total cost	Expenditure incurred upto March 1951	Expenditure			
			1951-52	1952-53	Two Years total	1953-54
1	2	3	4	5	6	7
MADRAS						
Irrigation						
Lower Bhawani	9,07	4,17	2,34	2,00	4,34	56
Malampuzha Reservoir	3,80	78	1,05	1,50	2,55	47
Mettur Canal Scheme	2,45	13	75	1,10	1,85	46
Rallapad 2nd stage	58	2	20	25	45	10
Romperu Drain	96	59	25	12	37	...
Cauveri Delta Drainage Improvements	30	29	1	...	1	...
Manimuthar Project	3,98	4	85	1,65	2,50	1,25
Upper Pennar Project	84	...	15	30	45	30
Bhiravanitippa Project	93	...	10	20	30	40
Araniar Scheme	95	...	20	35	55	30
Walyar Scheme	1,00	...	15	20	35	40
Mangalam Reservoir	45	...	5	10	15	20
New G. M. F. Scheme incharge of P. W. D.	73	...	...	73	73	...
Tungabhadra	18,20	8,06	3,63	3,91	7,54	1,40
Deduct—probable savings	...	...	2,00	2,00	4,00	...
Total	44.24	14,08	7.73	10.41	18,14	5.84
Power						
Moyar Hydro-Electric Scheme	4,64	2,74	51	50	1,01	18
Pykara—III stage Extensions	4,89	1.28	68	47	1,15	30
Papanasam 2nd stage Extensions	3,36	1,30	71	77	1,48	26
Machkhund Hydel scheme	6,82	1,84	1,00	1,99	2,99	83
Machkhund Transmission Lines	8,03	1.47	2,00	2,00	4,00	23
Madras Plant Extensions	10.43	1.71	1,01	1,72	2,73	1,80
Nellore Thermal Scheme	1,01	53	10	14	24	6
Madras Mettur Inter connection	2.18	59	34	22	56	15
Transmission line and Distribution	22,93	5.89	3.19	3.50	6,69	3.84
Tungabhadra Hydel Scheme	7,94	62	23	50	73	1,50
Acquisition of Electrical undertakings	4,50	8	54	46	1,00	60
Total	77,73	18,05	10,31	12,27	22,58	9.75
GRAND TOTAL	1,21,97	32.13	18,04	22,68	40,72	15.69

(Rupees in lakhs)

proposed			Balance of cost	Benefits Additional Irrigation and/or Power (000 acres/000 k. w.).					
1954-55	1955-56	Five years total		1951-52	1952-53	1953-54	1954-55	1955-56	On completion
8	9	10	11	12	13	14	15	16	17
...	...	4,90	...	10	30	100	130	165	207
1	...	3,03	...	...	...	10	20	30	40
...	...	2,31	...	...	...	10	25	40	45
...	...	55	...	...	...	4	8	12	12
...	...	37	...	...	2	5	8	10	10
...	...	1	...	...	...		...	...	...
20	...	3,95	...	...	...	...	12	18	20
9	...	84	...	...	...	...	2	4	6
23	...	93	...	...	...	...	2	5	11
10	...	95	...	...	...	...	1	3	3
25	...	1,00	...	...	...	2	3	5	8
10	...	45	...	...	...	1	2	2	4
...	...	73	...	...	...	...	...	...	...
70	50	10,14	...	...	100	121	143	165	250
...	...	...	...	...	...		...	...	...
1,68	50	30,16	...	10	132	253	356	459	615
12	10	1,41	49	12	12	36	36	36	36
43	20	2,08	1,53	...	...	28	28	28	28
16	9	1,99	7	7	7	10	10	10	17
23	27	4,32	66	...	...	52	52	52	103
19	13	4,55	2,01	...	...	...	...	...	...
1,91	1,27	7,71	1,01	...	24	28	28	28	58
6	5	41	7	5	5	8	8	8	8
12	12	95	64	...	...	...	...	...	...
3,38	3,48	17,39	65	...	...	...	...	...	...
2,50	1,70	6,43	89	...	...	...	...	30	60
60	80	3,00	1,42	...	...	...	...	...	...
9,70	8,21	50,24	9,44	24	48	162	162	192	310
11,38	8,71	80,40	9,44	10 24	132 48	253 162	356 162	459 192	615(I) 310(P)

Name of Project	Totalt cos	Expenditure incurred up to March 1951	Expenditure			
			1951-52	1952-53	Two years total	1953-54
1	2	3	4	5	6	7
ORISSA						
Irrigation						
Minor Irrigation	4,02	1,02	75	1,13	1,88	60
Power						
Duduma Transmission Scheme .	2,30	4	6	30	36	20
Rural Electrification Scheme .	41	3	1	5	6	5
Others	54	47	7	...	7	...
Total .	3,25	54	14	35	49	25
GRAND TOTAL .	7,27	1,56	89	1,48	2,37	85
PUNJAB						
Irrigation						
Dera Babananak Tubewell Scheme	15	...	...	2	2	5
Aliwala Tubewell Scheme . .	10	...	...	...	...	5
Extension of irrigation to arid areas of Jandiala and Gurdaspur Division of U. B. D. C. from main line . . .	25	...	5	20	25	...
Excavation of new distributary of Kasur Branch . . .	25	...	5	6	11	6
Kiran Nallah	20	...	18	...	18	...
Raising banks of Channels and giving temporary shoots during Kharif	1,26	...	20	20	40	20
Jagadhari Tubewell Scheme .	1,25	...	64	...	64	...
Other Schemes	65	...	27	7	34	...
Total .	4,11	...	1,39	55	1,94	36
Power						
Development of Nangal load .	59	21	18	20	38	...
Publicity and Propaganda . . .	1	...	0·1	0·1	0·2	0·3
Marketing and utilization . .	11	...	...	...	...	4
Total .	71	21	18	20	38	4
GRAND TOTAL .	4,82	21	1,57	75	2,32	40

(Rupees in lakhs) proposed			Balance of cost	Benefits Additional Irrigation and/or Power (000 acres/000 k.w.)					
1954-55	1955-56	Five years total		1951-52	1952-53	1953-54	1954-55	1955-56	On completion
8	9	10	11	12	13	14	15	16	17
35	17	3,00	...	...	63	170	224	255	261
15	10	81	1,45	...	...	...	...	...	...
5	3	19	19	...	...	...	...	...	1
...	...	7	...	5	5	5	5	5	5
20	13	1,07	1,64	5	5	5	5	5	6
55	30	4,07	1,64	5	63 5	170 5	224 5	255 5	261(I) 6(P)
8	...	15	..	...	...	...	10	20	20
5	...	10	...	...	...	...	10	14	14
...	...	25	...	...	20	40	60	80	100
...	...	17	...	20	40	65	90	115	140
...	...	18	...	...	11	22	33	44	44
20	20	1,00	...	50	60	75	90	100	100
...	...	64	...	10	30	50	70	90	102
...	...	34	...	59	119	152	152	156	156
33	20	2,83	...	139	180	414	515	619	676
...	...	38	...	...	...	...	...	...	...
0·2	0·1	0·8	...	...	...	...	...	...	...
6	1	11	...	...	...	...	...	...	...
6	1	50	...	...	...	...	...	...	...
39	21	3,33	...	139	180	414	515	619	676(I)

Name of Project	Total cost	Expenditure incurred up to March 1951	Expenditure			
			1951-52	1952-53	Two years total	1953-54
1	2	3	4	5	6	7
UTTAR PRADESH						
Irrigation						
600 State tubewells in Western Districts	1,80	1,47	19	15	34	...
50 additional tubewells in T. W. Circle (E)	17	7	5	5	10	...
200 additional tubewells in T. W. Circle (W)	71	15	16	40	56	...
100 State tubewells in Gorakhpur, Basti and Deoria Districts . .	30	18	11	1	12	...
Extension of pucca lining on tube-well guls	1,91	37	10	36	46	36
440 State tubewells in the Districts of Shahjehanpur, Sitapore etc. .	1,80	35	1,20	25	1,45	...
803 miles of extension of Sarda canal	49	38	6	5	11	...
1062 miles of extension of Sarda canal	90	38	18	24	42	10
Pratapgarh Branch . . .	50	13	9	28	37	...
Trans-Kalyani project . . .	60	10	12	28	40	10
Saprar Dam	46	45	10	...	10	...
Belan canal project . . .	90	9	20	25	45	25
Kabrai lake	19	5	10	4	14	...
Construction of 5293 State tube-wells	26,49	...	...	50	50	1,50
Lining, Irrigation channels, guls and canals	90	...	...	...	...	...
Reservoirs and Bundhis and canal systems including Majhgawar in Southern Uttar Pradesh . .	7,33	...	20	75	95	75
Contour guls and small channels in Hill Districts . . .	90	...	12	4	16	3
Other Schemes	1,12	1,08	10	...	10	...
Total .	47,47	5,25	3,06	3,64	6,70	3,09

(Rupees in lakhs)

proposed			Balance of cost	Benefits Additional Irrigation and/or Power (000 acres/000 k.w.)					
1954-55	1955-56	Five years total		1951-52	1952-53	1953-54	1954-55	1955-56	On completion
8	9	10	11	12	13	14	15	16	17
...	...	34	...	258	283	283	283	283	283
...	...	10	...	10	13	13	13	13	13
...	...	56	...	54	94	94	94	94	94
...	...	12	...	32	32	32	32	32	32
36	36	1,54	...	25	42	61	80	99	113
...	...	1,45	...	20	60	140	187	187	187
...	...	11	...	176	176	176	176	176	176
...	...	52	...	60	105	156	176	176	176
...	...	37	...	10	26	44	44	44	44
...	...	50	...	12	26	44	44	44	44
...	...	10	...	30	30	30	30	30	30
11	...	81	...	...	20	38	38	38	38
...	...	14	...	5	5	5	5	5	5
1,50	1,50	5,00	21,49	...	...	25	175	175	1,533
10	10	20	70	...	...	...	...	5	45
75	55	3,00	4,33	...	15	60	100	160	524
3	3	25	65	...	4	5	6	7	24
...	...	10	...	113	113	113	113	113	113
2,85	2,54	15,19	27,17	805	1,044	1,319	1,596	1,681	3,474

Name of Project	Total cost	Expenditure incurred up to March 1951	Expenditure			
			1951-52	1952-53	Two years total	1953-54
1	2	3	4	5	6	7
UTTAR PRADESH—*contd.*						
Power						
Mohammadpur Station	1,06	90	8	8	16	...
Sarda Power House	7.50	3,00	1,14	1,00	2,14	1,50
Pathri Power House	1,86	41	57	50	1,07	39
Gorakhpur Power House	45	30	16	...	16	...
Ganga Transmission lines	1,00	25	15	26	41	35
Sarda Transmission lines	5,00	85	32	1,01	1,33	1,50
Eastern Area Power Station	4.57	...	...	20	20	46
Kanpur Electric Supply Administration	5,00	...	...	...	...	...
Small Hydel schemes in Hill Districts	60	...	...	5	5	5
Other Schemes (one)	24	21	3	...	3	...
Total	27,28	5.92	2,45	3.10	5.55	4,25
GRAND TOTAL	74,75	11,17	5,51	6,74	12,25	7.34
WEST BENGAL						
Irrigation						
Mayurakshi Reservoir	15,50	3,06	2.56	3.40	5.96	3.95
Surankar Daura Scheme	13	3	7	3	10	...
Sonarpur—Arah-panch Matla Scheme	1,05	...	45	60	1,05	...
Bagjale Chuni Jantra-gachi scheme	99	...	39	60	99	...
Other Schemes	1,54	94	48	10	58	1
Total	19,21	4,03	3.95	4.73	8,68	3.96

(Rupees in lakhs)

proposed			Balance of cost	Benefits Additional Irrigation and/or Power (000 acres/000 K. W.)					
1954-55	1955-56	Five years total		1951-52	1952-53	1953-54	1954-55	1955-56	On completion
8	9	10	11	12	13	14	15	16	17
...	...	16	...	6	6	6	6	6	6
86	...	4,50	...	...	...	...	23	23	23
...	...	1,45	...	...	...	9	9	9	9
...	...	16	...	2	2	2	2	2	2
...	...	76	...	...	...	...	...	...	...
1,33	...	4,16	...	...	...	...	...	...	...
50	50	1,66	2,91	...	...	1·5	6	11	42
...	50	50	4,50	...	...	...	...	...	50
5	5	20	40	...	...	0·25	0·50	0·75	3·00
...	...	3	...	2	2	2	2	2	2
2,74	1,05	13,58	7,81	10	10	20·75	48·5	53·75	137(P)
5,59	3,59	28,77	34,98	805 *10*	1,044 *10*	1,319 *20·75*	1,596 *48·50*	1,681 *53·75*	3,474(I) *137·00*(P)

2,53	...	12,44	...	100	200	200	400	600/4	600/4
...	...	10	...	...	4	6	6	6	6
...	...	1,05	...	...	28	28	46	46	46
...	...	99	...	...	...	26	26	26	26
...	...	59	...	174	385	389	389	389	389
2,53	...	15,17	...	274	617	648	867	1,067	1,067

Name of project	Total cost	Ex-penditure incurred up to March 1951	Expenditure			
			1951-52	1952-53	Two years total	1953-54
1	2	3	4	5	6	7
WEST BENGAL.—*contd.*						
Power						
North Calcutta Electrification Scheme	109	48	23	28	52	9
Appointment of Power Engineer Scheme	17	6	2	2	4	2
Other Schemes	10	4	3	1	5	1
Total	136	58	28	31	61	12
GRAND TOTAL	20,56	4,61	4,24	50	9,29	4,08
HYDERABAD						
Irrigation						
Tungabhadra	23,04	6,22	4,00	5,00	9,00	4,00
Rajolibunda	4,30	1,16	1,00	1,00	2,00	70
Godavri First Phase	4,41	83	80	80	160	80
Koilsagar	60	20	12	15	27	13
Sarlasagar	22	6	8	8	16	...
Bendsura	43	24	19	...	19	...
Khasapur	32	1	6	9	15	8
Minor Irrigation	70	...	25	25	50	20
Others	8	2	6	...	6	...
Total	34,10	8,74	6,56	7,37	13,93	5,91
Power						
Nizamsagar Hydro-Electric Project	1,75	1,33	42	...	42	...
Tungabhadra Hydel (1st phase—Civil Works)	50	2	23	25	48	...
Ramgundam Thermal	2,81	1,64	76	41	1,17	...
Hyderabad Thermal	27	...	9	4	13	14
Total	5,33	2,99	1,50	70	2,20	14
GRAND TOTAL	39,43	11,73	8,06	8,07	16,13	6,05

(Rupees in lakhs)				Benefits Additional Irrigation and /or Power (000 acres/000 K. W.)					
proposed			Balance of cost						
1954-55	1955-56	Five years total		1951-52	1952-53	1953-54	1954-55	1955-56	On completion
8	9	10	11	12	13	14	15	16	17
...	...	61	...	...	...	...	...	...	...
2	2	11	...	...	...	...	...	...	...
...	...	6	...	...	...	...	...	...	...
2	2	78	...	...	...	...	...	...	...
2,56	2	15,96	...	274 ...	618 ...	648 ...	867 ...	10,67 4	10,67 (I) 4 (P)
2,00	1,09	16,09	73	4	50	1,00	1,50	200	450
44	...	3,14	...	...	...	10	20	35	79
70	48	3,58	...	...	...	10	20	40	53
...	...	40	...	...	...	2	5	8	10·3
...	...	16	...	...	...	...	2	4	5
...	...	19	...	...	1	2	4	7	8
8	...	31	...	...	...	...	1	3	13
...	...	70	...	23	45	60	60	60	60
...	...	6	...	...	...	1	2	2	2
3,22	1,57	24,63	73	27	96	185	263	359	680
...	...	42	...	...	15	15	15	15	15
...	...	48	...	...	...	...	...	...	...
...	...	1,17	...	...	...	37	37	37	37
...	...	27	...	...	...	...	8	8	8
...	...	2,34	...	...	15	52	60	60	60
3,22	1,57	26,97	73	27 ...	96 *15*	185 *52*	263 *60*	359 *60*	680 (I) *60* (P)

Name of Project	Total cost	Expenditure incurred up to March 1951	Expenditure			
			1951-52	1952-53	Two years total	1953-54
1	2	3	4	5	6	7
MADHYA BHARAT						
Irrigation						
Khuj Project	1,00	...	...	25	25	25
Chiri Project	40	...	...	10	10	10
Lohagarh Project	50	...	...	12	12	13
Construction of new tanks	57	...	5	31	36	7
Repairs to old tanks	47	...	18	13	31	5
Improvement and extension of channels	34	...	20	14	34	...
Total	3,28	...	43	1,05	1,48	60
Power						
Central Power House at Indore Installation of 3000 K. W. reconditioned plant at Indore H. T. from Indore and remodelling of mains at Ujjain	1,76	35	33	72	10,5	31
Extension of Power Plant and remodelling of mains at Gwalior	55	7	5	35	40	8
Rural electrification	16	...	5	8	13	4
Others	18	4	10	2	12	2
Total	2,64	46	54	1,17	1,70	44
GRAND TOTAL	5,92	46	97	2,22	3,18	1,04
MYSORE						
Irrigation						
Constructing a Reservoir across the Bhadra River near Lakkavalli	20,00	70	30	36	66	40
Anicut across Tunga River near Sakrebyle	2,00	51	25	30	55	32
Reservoir across Nugu River	2,20	30	28	35	63	43
New Tank across Jinigehalla	21	8	3	3	6	3
Normal Expenditure of Krishnarajasagar and allied works in Visweswarayya Canal area	50	...	12	12	24	10
Reservoir across Salur Halla at Ambligola	18	...	1	2	3	4
New Tank across Suvarnamukhi River at Kariyala	20	...	1	3	4	6
Other Schemes	1,78	86	22	28	50	22
Total	27,09	2,45	1,19	1,50	2,70	1,61

(Rupees in lakhs)

proposed			Balance of cost	Benefits Additional Irrigation and/or Power (000 acres/000 K. W.)					
1954-55	1955-56	Five years total		1951-52	1952-53	1953-54	1954-55	1955-56	On completion
8	9	10	11	12	13	14	15	16	17
25	25	1,00	...	...	...	...	...	12	12
10	10	40	...	...	...	...	...	8	8
13	12	50	...	...	...	...	...	25	25
7	7	57	...	4	8	12	16	20	20
5	5	46	1	2	4	6	8	10	10
...	...	34	...	3	6	9	12	15	15
60	59	3,27	1	9	18	27	36	57	90 (I)
5	...	1,41	...	...	3	13	13	13	13
..	...	48	...	...	...	...	...	...	...
...	...	17	...	...	...	1	1	1	1
...	...	14	...	...	1	1	1	2	2
5	1	2,19	...	1	4	15	15	15	15
65	60	5,46	...	9 1	18 4	27 15	36 15	57 15	90 (I) 15 (P)
40	40	186	17,44	...	...	...	...	22	180 14
32	30	1,49	...	...	...	...	...	21	21
42	42	1,90	...	...	...	...	...	20	20
2	1	12	...	...	...	...	...	...	2
8	8	50	...	...	...	...	...	...	...
5	4	16	2	...	...	...	...	...	7
5	5	20	...	...	...	...	...	...	2
14	7	93	2	...	...	...	...	1	27
1,47	1,38	7,16	17,48	...	...	...	...	64	2,59

Name of Project	Total cost	Expenditure incurred up to March 1951	Expenditure 1951-52	1952-53	Two years total	1953-54
1	2	3	4	5	6	7
MYSORE—*contd.*						
Power						
Normal Capital Works	3,20	...	80	60	1,40	60
Mahatma Gandhi Hydro-Electric Works	7,30	6,47	33	40	73	10
Frequency Conversion	30	...	6	10	16	10
Shimsha Extension	3,20	...	1	50	51	1,00
Extension of Transmission lines	1,63	...	33	40	73	30
Installation of Stepdown Stations	1,16	...	41	25	66	15
Distribution	2,02	...	43	50	92	40
Power supply to Irrigation pumping sets	40	...	...	10	10	10
Others (survey of projects)	3	...	3	...	3	...
Total	19,24	6,47	2,40	2,85	5,24	2,75
GRAND TOTAL	46,33	8,92	3,59	4,35	7,94	4,36
PEPSU						
Irrigation						
Remodelling of channels	15	3	3	5	8	2
Others	20	...	11	8	19	1
Total	35	3	14	13	27	3
Power						
Electrification of Pepsu Towns	2,00	...	16	4	20	4
GRAND TOTAL	2,35	3	30	17	48	7

(Rupees in lakhs.)

proposed			Balance of cost	Benefits Additional Irrigation and/or Power (000 acres/000 K. W.)					
1954-55	1955-56	Five years total		1951-52	1952-53	1953-54	1954-55	1955-56	On completion
8	9	10	11	12	13	14	15	16	17
60	60	3,20	...	...	...	...	...	...	...
...	...	83	...	48	120	120	120	120	120
4	...	30	...	...	...	...	...	...	...
1,00	60	3,11	9	...	...	...	34	51	51
30	30	1,63	...	...	...	...	...	...	...
15	20	1,16	...	...	...	...	...	...	...
40	30	2,02	...	...	...	...	...	...	...
10	10	40	...	...	...	...	...	...	...
...	...	5	...	...	...	...	...	...	...
2,59	2,10	12,68	9	48	120	120	154	171	171
4,06	3,48	19,84	17,57	... 48	... 120	... 120	... 154	64 171	259 (I) 171 (P)
2	2	14	...	...	...	...	...	...	...
...	...	20	...	1	1	1	1	1	1
2	2	34	...	1	1	1	1	1	1
4	2	31	1,69	...	...	...	...	...	...
6	4	65	1,69	1	1	1	1	1	1 (I)

Name of Project	Total cost	Expenditure incurred upto March 1951	Expenditure			
			1951-52	1952-53	Two years total	1953-54
1	2	3	4	5	6	7
RAJASTHAN						
Irrigation						
Jawai Project	2,39	1,20	55	22	77	18
Parbati Irrigation Project	50	...	...	2	2	20
Gudha Irrigation Project	34	...	...	1	1	15
Kali Sill Project	16	...	1	7	9	8
Other Projects	6,50	44	49	42	91	55
Total	9,89	1,64	1,06	73	1,80	1,16
Power.						
Power Project	38	...	38	...	38	...
GRAND TOTAL	10,27	1,64	1,44	73	2,18	1,16
SAURASHTRA						
Irrigation						
Ranghola	54	34	21	...	21	...
Machu	76	8	15	25	40	20
Brahmani	72	12	15	25	40	20
Sashoi	68	13	3	20	23	20
Ghee	18	8	10	...	10	...
Puna	13	3	1	9	10	...
Surajwadi	28	13	14	...	14	...
Moj	72	...	3	25	28	25
Bhimdad	19	...	10	9	19	...
Malan	30	...	...	10	10	10
Aji	70	...	10	10	20	20
Bhogavo	50	...	...	...	...	...
Ozat	60	...	...	...	...	...
Lift irrigation	10	...	2	2	4	2
Total	6,41	92	1,04	1,35	2,39	1,18

Rupees in lakhs)

proposed			Balance of cost	Benefits Additional Irrigation and/or Power (000 acres/000 K. W.)					
1954-55	1955-56	Five years total		1951-52	1952-53	1953-54	1954-55	1955-56	On completion
8	9	10	11	12	13	14	15	16	17
15	9	1,19	...	...	...	...	...	46	46
20	8	50	...	...	...	...	...	15	15
14	4	34	...	...	...	...	...	30	30
...	...	16	...	...	...	...	...	14	14
49	42	2,37	3,69	...	...	...	...	...	491
98	63	4,56	3,69	...	...	...	...	105	596
...	...	38	...	...	...	...	...	...	...
98	63	4,94	3,69	...	...	...	...	105	596
...	...	21	...	10	10	10	10	10	10
8	...	68	...	...	...	...	22	22	22
11	...	61	...	...	...	...	22	22	22
11	...	54	...	...	...	...	6	6	6
...	...	10	...	...	4	4	4	4	4
...	...	10	...	...	1	1	1	1	1
...	...	14	...	...	3	3	3	3	3
19	...	72	...	...	...	...	15	15	15
...	...	19	...	...	3	3	3	3	3
10	...	30	...	...	...	...	6	6	6
20	10	70	...	...	...	...	...	6	6
10	10	20	30	...	...	...	...	...	6
10	10	20	40	...	...	...	...	...	20
2	2	10	...	1	1	2	2	3	3
1,00	32	4,79	70	11	22	23	94	101	108

Name of Project	Total cost	Expenditure incurred upto March 1951	Expenditure			
			1951-52	1952-53	Two years total	1953-54
1	2	3	4	5	6	7
Power						
~~*Power Project*~~						
Establishment of Thermal Stations	2,62	...	50	53	1,03	53
GRAND TOTAL .	9,03	92	1,54	1,88	3,42	1,71
TRAVANCORE-COCHIN						
Irrigation						
Peechi	1,73	63	50	61	1,10	...
Chalakudy	1,20	22	27	71	98	...
Perunchrani	68	42	15	11	26	...
Wadakkancheri	49	5	20	24	44	...
Vembanad	80	...	15	30	45	35
Neyyar Scheme	1,20	...	10	25	35	45
Total .	6,10	1,31	1,37	2,22	3,58	80
Power						
Palliwasal II stage	2,30	70	38	76	1,14	46
Sengulam Hydel	2,75	1,40	68	55	1,23	12
Poringalkuthu Left Bank . .	2,60	1,25	60	75	1,35	...
Transmission and Distribution .	9,55	4,00	84	1,46	2,30	1,46
Total .	17,20	7,35	2,50	3,52	6,02	2,04
GRAND TOTAL .	23,30	8,66	3,87	5,74	9,60	2,84

(Rupees in lakhs.)

proposed			Balance of cost	Benefits Additional Irrigation and/or Power (000 acres/000 K. W.)					
1954-55	1955-56	Five years total		1951-52	1952-53	1953-54	1954-55	1955-56	On completion
8	9	10	11	12	13	14	15	16	17
53	53	2,62	...	...	3	6	9	12	12
1,53	85	7,41	70	11	22 3	23 6	94 9	101 12	108 (I) 12 (P)
...	...	1,10	...	...	...	48	48	48	48
...	...	98	...	...	...	50	50	50	50
...	...	28	...	...	...	6	6	6	6
...	...	44	...	...	...	11	11	11	11
...	...	80	...	...	...	...	24	24	24
40	...	1,20	...	...	...	...	...	31	31
40	...	4,78	...	...	...	115	139	170	170
...	...	1,60	...	...	...	...	8	9	9
...	...	1,35	...	12	48	48	48	48	48
...	...	1,35	...	...	24	24	24	24	24
1,08	71	5,55	...	...	...	...	...	...	...
1,08	71	9,85	...	12	72	72	79	81	81
1,48	71	14,63	...	... 12	... 72	115 72	139 79	170 81	170 (I) 81 (P)

Name of Project	Total cost	Expenditure incurred upto March 1951	Expenditure			
			1951-52	1952-53	Two years total	1953-54
1	2	3	4	5	6	7
PART 'C' STATES						
Bhopal						
Bhopal Electric Power Extension Scheme	5	...	...	...	4	...
Coorg						
Bulk Purchase of Power from Mysore	15	...	...	...	15	...
Kutch						
Major irrigation works including wells	95	...	...	...	35	...
Power Project—Acquisition of Electricity undertakings	11	...	...	...	11	...
Rural Electrification	12	...	...	...	...	...
Total	1,18	...	...	...	46	...
Tripura						
Nationalisation of Electric Supply Company, Agartala	7	...	...	...	7	...
Vindhya Pradesh						
Power Project	50	...	...	...	46	...
Himachal Pradesh						
Irrigation—Medium Irrigation Projects	80	...	...	...	30	...
Power—Installation of Hydel Plants in Mandi, Chamba and Mahasu and extension of electricity from Mandi to Sundarnagar	9	...	...	...	3	...
Total	89	...	...	...	33	...
GRAND TOTAL	2,86	...	...	...	1,52	...

(Rupees in lakhs)

proposed.			Balance of cost	Benefits Additional Irrigation and/or Power (000 acres/000 K. W.).					
1954-55	1955-56	Five years total		1951-52	1952-53	1953-54	1954-55	1955-56	On completion
8	9	10	11	12	13	14	15	16	17
...	...	5	...	...	...	...	...	...	...
...	...	15	...	...	...	...	...	...	...
...	...	95	...	...	...	...	...	...	...
...	...	11	...	...	...	...	...	...	...
...	...	12	...	...	...	...	...	...	...
...	...	1,18	...	...	...	...	...	...	...
...	...	7	...	...	...	...	...	...	..
...	...	50	...	...	...	...	...	...	...
...	...	80	...	...	...	...	...	300	300
...	...	9	...	...	...	...	...	1	1
...	...	89	...	...	...	...	...	300	300
...	...	2,86	...	...	...	...	...	300/1	300/1

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THE FIRST FIVE YEAR PLAN

A DRAFT OUTLINE

Corrigenda

Page	28	Para	59	Line	1	*after* " holding " *insert* " in check "
,,	28	,,	59	,,	2	*delete* " in check "
,,	33	,,	72	,,	8	*for* " parties " *read* " parities "
,,	37	,,	—	,,	8	*for* " taht " *read* " that "
,,	42	,,	22	,,	1	*for* " connection " *read* " correction "
,,	42	,,	22	,,	1	*for* " dispart " *read* " disparities in "
,,	46	Footnote		,,	2	*delete* " the " *before* " Rs "
,,	77	Para	—	,,	4	*for* " objectives " *read* " objective "
,,	78	,,	5	,,	27	*for* " however " *read* " nevertheless "
,,	91	,,	16	,,	16	*for* " Centres " *read* " Centre "
,,	168	,,	—	,,	11	*for* " racticability " *read* " practicability "
,,	186	,,	10	,,	10	*delete* the line
,,	201	,,	—	,,	5	*for* " pysiology " *read* " physiology "
,,	201	,,	21	,,	6	*for* " fields " *read* " field "
,,	203	,,	—	,,	17	*substitute* " and " *for* " , " *before* " distribution "
,,	212	Table, footnote				*delete* " Governments for other housing "
,,	221	Para	6	Line	12	*delete* " the " *after* the word " serving "
,,	229	,,	8	,,	12	*for* " missionery " *read* " missionary "
,,	292	Column	1			*delete* " Power Project " *under* " Power "

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